
DMS-100* FAMILY

ALL PRODUCT COMPUTING-MODULE LOADS

Volume 8 of 15

ACTIVE BUILDING BLOCK
ENGINEERING MANUALS

97Q4

Standard 05.03

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EMB

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EMB1: INTRODUCTION

EMB2: PERIPHERAL MODULES MENU

EMA2-06-ZZ37BC	INTERNATIONAL XPM NON-ISDN 48VDC COMMON	NTZZ37BC
EMA2-06-ZZ37BD	INTERNATIONAL XPM PLUS NON-ISDN 48VDC CO	NTZZ37BD
EMB2-01-IMT-4	INTERNATIONAL METALLIC TEST UNIT	NTZZ41AM
EMB2-01-IMT-5	INTERNATIONAL TRANSMISSION TEST UNIT	NTZZ41CM
EMB2-01-IMT-6	INTERNATIONAL TRANSMISSION TEST TRUNK	NTZZ41DM
EMB2-01-MOD-1	4 TOPS/ATT.CONVS MODEM CCTS	NTZZ06HA
EMB2-01-MTU-1	MULTILINE TEST UNIT	NTZZ06EA
EMB2-01-TTT-1	TRANSMISSION TEST TRUNK	NTZZ06GA
EMB2-01-TTU-1	TRANSMISSION TEST UNIT	NTZZ06FA
EMB2-02-IOM-1	IOM STORAGE MEDIA CARD KIT	NTZZ40AJ
EMB2-02-IOM-2	IOM MAIN CONTROLLER CARD KIT	NTZZ40AK
EMB2-02-ISM-1	CABINETIZED INTEGRATED SERVICES MODULE (	NTZZ47XA
EMB2-02-ISM-3	ISME WITH MSP	NTZZ40AB
EMB2-02-ISM-5	ISM SHELF (MTM)	NTZZ40AD
EMB2-02-ISM-7	ISM ALARM GROUP SHELVES	NTZZ40AF
EMB2-02-ISM-8	MISC. EQUIPMENT FOR CISM/ISM SHELVES W/I	NTZZ40AG
EMB2-02-UPI-1	ENHANCED LINE GROUP CONTROLLER ISDN	NTZZ17TU
EMB2-06-CMR-1	CLASS MODEM RESOURCE	NTZZ02EA
EMB2-06-CTD-1	CONTINUITY TONE DETECTOR	NTZZ04CA
EMB2-06-DS1-3	2 SCM DS-1 INTERFACES	NTZZ03FA
EMB2-06-DTC-1	DIGITAL TRUNK CONTROLLER	NTZZ04BA
EMB2-06-DTC-2	DS0A SIGNALING INTERFACE	NTZZ04AA
EMB2-06-DTC-4	DIGITAL TRUNK CONTROLLER FOR DWS	NTZZ04BB
EMB2-06-DTC-5	DTC WITH XPM+ FOR DWS	NTZZ04KA
EMB2-06-DTC-6	DTC WITH XPM+	NTZZ04HB
EMB2-06-DTC-7	DTC MODULE COMMON CIRCUIT PACKS WITH XPM	NTZZ04HD
EMB2-06-DTC-8	DTC MODULE WITH XPM+ FOR DWS	NTZZ04KD
EMB2-06-DTP	ISDN XPM PLUS DTC	NTZZ17SM
EMB2-06-DTP-1	ISDN XPM PLUS DTC	NTZZ17ST
EMB2-06-DTP1	ENHANCED DIGITAL TRUNK CONTROLLER ISDN (	NTZZ17SV
EMB2-06-DTX	ISDN XPM DTC	NTZZ17SA
EMB2-06-EISP	ENHANCED ISDN SIGNALLING PRE-PROCESSOR	NTZZ03AJ
EMB2-06-EP	ENHANCED PROCESSOR	NTZZ03AC
EMB2-06-GTR-1	30 GLOBAL TONE RECEIVER CIRCUITS	NTZZ02FC
EMB2-06-LGC-1	LINE GROUP CONTROLLER	NTZZ02BA
EMB2-06-LGC-2	LGC WITH XPM+	NTZZ02QA
EMB2-06-LGC-3	LGC+ WITH EDC	NTZZ02QM
EMB2-06-LGC-4	LGC+ MODULE W/EDC AND ADSI/SCWID	NTZZ02QN
EMB2-06-LGC-6	LINE GROUP CONTROLLER COMMON CP	NTZZ02QJ
EMB2-06-LGC-7	ISDN LINE GROUP CONTROLLER COMMON CP	NTZZ17RS
EMB2-06-LGP	ISDN XPM PLUS LGC	NTZZ17RM
EMB2-06-LGX	ISDN XPM LTC	NTZZ17RA
EMB2-06-LIF-1	10 DS30A LCM INTERFACES	NTZZ02KA
EMB2-06-LTC-1	LINE TRUNK CONTROLLER	NTZZ02CA

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EMB2-06-LTC-2	LTC WITH XPM+	NTZZ02PA
EMB2-06-LTC-3	LTC+ WITH EDC	NTZZ02PM
EMB2-06-LTC-4	LTC+ MODULE WITH EDC AND ADSI/SCWID	NTZZ02PN
EMB2-06-LTC-6	LINE TRUNK CONTROLLER COMMON CP	NTZZ02PJ
EMB2-06-LTC-7	ISDN LINE TRUNK CONTROLLER COMMON CP	NTZZ17QS
EMB2-06-LTC8	ENHANCED LINE TRUNK CONTROLLER ISDN (LTC	NTZZ17GL
EMB2-06-LTP	ISDN XPM PLUS LTC	NTZZ17QM
EMB2-06-LTX	ISDN XPM LTC	NTZZ17QA
EMB2-06-MPT-1	MESSAGE PROTOCOL AND TONE CIRCUITS FOR X	NTZZ02RA
EMB2-06-MPT-2	MESSAGE PROTOCOL AND TONE CIRCUITS FOR A	NTZZ02RB
EMB2-06-MPT-3	MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC	NTZZ02RC
EMB2-06-MPT-4	MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC	NTZZ02RD
EMB2-06-MVI-1	CPM2 SHELF FILLER FACEPLATE KIT	NTZZ12KJ
EMB2-06-NIF-1	16 DS30 NETWORK INTERFACES	NTZZ02GA
EMB2-06-NIF-2	16 DS30 NETWORK INTERFACES	NTZZ02GC
EMB2-06-NIF-4	4 DS30 NETWORK INTERFACES	NTZZ02AA
EMB2-06-NIF-6	DS512 NETWORK INTERFACE	NTZZ02HM
EMB2-06-NIF-7	DS512 NETWORK INTERFACE	NTZZ02HN
EMB2-06-RPC-1	RING/PAD CIRCUITS	NTZZ02SA
EMB2-06-RPC-2	RING/PAD CIRCUITS, FREQUENCY SELECTIVE R	NTZZ02SB
EMB2-06-SMA-18	SMA2 COMMON CP PACKFILL	NTZZ03SY
EMB2-06-SMA-25	SMA2/ESMA COMMON CP PACKFILL	NTZZ03SF
EMB2-06-SMS-3	SUBSCRIBER MODULE FOR SLC-96	NTZZ03BG
EMB2-06-SMS-4	SUBSCRIBER CARRIER MODULE-100S REMOTE (S	NTZZ03EF
EMB2-06-SMS-7	SMS+ COMMON CP (ON NT6X01AA)	NTZZ03BH
EMB2-06-SMS-8	SUBSCRIBER MODULE SLC-96 COMMON CP	NTZZ03BS
EMB2-06-SMSR-3	REMOTE SUBSCRIBER MODULE FOR SLC-96 W/XP	NTZZ03ED
EMB2-06-SMSR-5	SMS-R+ COMMON CP (ON NT6X01AA)	NTZZ03EG
EMB2-06-SMU-12	SMUI W/XPM+	NTZZ03RC
EMB2-06-SMU-14	SUBSCRIBER MODULE DMS-1U COMMON CP	NTZZ03DK
EMB2-06-SMU-16	SUBSCRIBER MODULE FOR DMS-1 URBAN COMMON	NTZZ03DM
EMB2-06-SMU-17	SMUI W/XPM+	NTZZ03RL
EMB2-06-SMU-2	ISDN SUBS MODULE FOR DMS-1 URBAN COMM CP	NTZZ03DL
EMB2-06-SMU-9	SUBSCRIBER MODULE FOR DMS-1U WITH XPM+	NTZZ03DE
EMB2-06-UP	SMS+ COMMON CP (ON NT6X01AA)	NTZZ03AB
EMB2-06-UPI-1	ISDN XPM PLUS DWS COMMON PERIPHERAL CONT	NTZZ17TM
EMB2-06-UPI-2	ISDN COMMON PERIPHERAL CONTROLLER MOD WI	NTZZ17TT
EMB2-06-UTR-1	30 UNIVERSAL TONE RCVR CCTS	NTZZ02FA
EMB2-06-UTR-2	30 UNIVERSAL TONE RCVR CCTS	NTZZ02FB
EMB2-06-UTR-3	30 UNIVERSAL TONE RCVR CCTS, INTERNATIONAL	NTZZ41CA
EMB2-06-UTR-4	UNIVERSAL TONE RECEIVER (RSC-S) (NT6X92B	NTZZ12VB
EMB2-06-UTR-5	NT6X92EA GLOBAL TONE RECEIVER (RSC-S)	NTZZ12VC
EMB2-06-XPL-1	XPM PERIPHERAL LOADER CP	NTZZ02UA
EMB2-06-ZZ37AC	CIPE, MODEL B, 48VDC, ISDN	NTZZ37AC
EMB2-06-ZZ37BB	INTERNATIONAL XPM PLUS ISDN 48VDC COMMON	NTZZ37BB
EMB2-06-ZZ37CB	CIPE PCM-30 ENHANCED I/F H/W KIT, UPPER	NTZZ37CB
EMB2-06-ZZ37CC	CIPE PCM-30 ENHANCED I/F H/W KIT, LOWER	NTZZ37CC
EMB2-06-ZZ37CL	CIPE PERSONALITY PLATE KIT, LOWER MODULE	NTZZ37CL
EMB2-06-ZZ37CN	DS30 NETWORK INTERFACE UPPER MODULE (A/B	NTZZ37CN
EMB2-06-ZZ37CP	DS30 NETWORK INTERFACE LOWER MODULE (A/B	NTZZ37CP
EMB2-06-ZZ37CQ	DS512 NETWORK INTERFACE (A/B CABINET)	NTZZ37CQ
EMB2-06-ZZ37CS	CIPE PCM-30 ENHANCED I/F H/W KIT, UPPER	NTZZ37CS
EMB2-06-ZZ37CT	CIPE PCM-30 ENHANCED I/F H/W KIT, LOWER	NTZZ37CT
EMB2-06-ZZ37CU	CIPE MODEL B BASIC BULKHEAD COVERPLATE K	NTZZ37CU

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EMB2-06-ZZ41AA	INTERNATIONAL FRAME LGE/DTE NON-ISDN	NTZZ41AA
EMB2-06-ZZ41BA	INTERNATIONAL XPM NON-ISDN 48VDC COMMON	NTZZ41BA
EMB2-06-ZZ41DA	INTERNATIONAL FRAME LGE/DTE ISDN	NTZZ41DA
EMB2-06-ZZ41EA	INTERNATIONAL XPM ISDN 48VDC COMMON CP	NTZZ41EA
EMB2-06-ZZ43AA	INTERNATIONAL XPM PLUS ISDN 48VDC COMMON	NTZZ43AA
EMB2-06-004	COMMON PERIPHERAL CONTROLLER EQUIPMENT F	NTZZ17AT
EMB2-07-IRG-1	RINGING GENERATOR (UK)	NTZZ41XT
EMB2-07-IRG-2	RINGING GENERATOR (CHINA)	NTZZ41YT
EMB2-07-IRG-3	RINGING GENERATOR (AUSTRALIA)	NTZZ41ZT
EMB2-07-LCM-2	LINE CONCENTRATING MODULE	NTZZ08BD
EMB2-07-RG4	RINGING GENERATOR (NORTH AMERICA)	NTZZ41WT
EMB2-07-003	INTERNATIONAL LINE CONCENTRATING EQUIPME	NTZZ41JA
EMB2-08-LCM-1	CLMI LINE DRAWER FILLERS	NTZZ33CA
EMB2-09-CPE-3	CABINETIZED COMMON PERIPHERAL EQUIPMENT	NTZZ47GD
EMB2-09-IRG-2	RINGING GENERATOR CABINET SYS (UK)	NTZZ08GT
EMB2-09-IRG-3	RINGING GENERATOR CABINET SYS (CHINA/AUS	NTZZ08HT
EMB2-09-IRG-4	RINGING GENERATOR CABINET SYS (JAPAN)	NTZZ08JT
EMB2-09-LCE-5	CABINETIZED LINE CONCENTRATING EQUIPMENT	NTZZ08EC
EMB2-09-LCE-6	CABINETIZED LINE MODULE ISDN	NTZZ47BC
EMB2-09-LCM-3	LCM FOR CLCE INTERNATIONAL MODEL B	NTZZ08MB
EMB2-09-LCM-4	LCM FOR CABINETIZED LCE MODEL B	NTZZ08BC
EMB2-09-RG1	RINGING GENERATOR CABINET SYS (NORTH AME	NTZZ08FT
EMB2-11-FFP-1	CCS7 ST FILLER FACEPLATES	NTZZ05GA
EMB2-11-STI-1	CCS7 SIG TERMINAL I/F	NTZZ05FA
EMB2-11-STI-2	CCS7 SIG TERMINAL I/F WITH TERMINATOR	NTZZ05DA
EMB2-11-ZZ37HC	INTERNATIONAL CMS7, MODEL B	NTZZ37HC
EMB2-11-000	MESSAGE SIGNALING 7 FRAME	NTZZ05AA
EMB2-11-003	CCS7 SIGNALING TERMINAL PAIR (MSB7)	NTZZ05BA
EMB2-11-004	CCS7 SIGNALING TERMINAL PAIR (ST7G)	NTZZ05EA
EMB2-11-005	SIGNALING TERMINAL 7 GROUP SHELF	NTZZ05CA
EMB2-12-FFP-1	ST FILLER FACE PLATE	NTZZ11EA
EMB2-13-BSP	BATTERY STRING PAIR	NTZZ19NA
EMB2-13-ESA	OPM ESA CP PACKAGE	NTZZ19QB
EMB2-13-OPMT	OPM MAINTENANCE TOOLS	NTZZ19MA
EMB2-14-ESA-2	RLCM ESA CP PACKAGE	NTZZ16DB
EMB2-14-FSP-1	RLCM FRAME SUPERVISORY PANEL W/O PWR DIS	NTZZ16BA
EMB2-14-FSP-2	RLCM FRAME SUPERVISORY PANEL E/W PWR DIS	NTZZ16CA
EMB2-14-IES-4	ESA CP PACKAGE	NTZZ16RA
EMB2-14-ILCM-2	INTERNATIONAL LINE CONCENTRATING MODULE	NTZZ43MB
EMB2-14-IRG-1	RINGING GENERATOR (UK)	NTZZ43CA
EMB2-14-IRG-2	RINGING GENERATOR (CHINA)	NTZZ43DA
EMB2-14-IRG-4	RINGING GENERATOR (TURKEY/CEP)	NTZZ43EB
EMB2-14-IRG-5	RINGING GENERATOR (AUSTRALIA)	NTZZ43CF
EMB2-14-IRM-2	INTERNATIONAL REMOTE LINE CONCENTRATING	NTZZ41RB
EMB2-14-RMM-2	REMOTE MAINTENANCE MODULE - STANDARD	NTZZ16HA
EMB2-14-RMM-3	RMM PACKFILL	NTZZ16SA
EMB2-14-RMM-4	REMOTE MAINTENANCE MODULE - STANDARD	NTZZ16FB
EMB2-14-006	REMOTE LINE CONCENTRATING MODULE	NTZZ16NB
EMB2-15-RMC-1	CUSTOM REMOTE MAINTENANCE MODULE (RMM)	NTZZ12CC
EMB2-15-RMM-4	REMOTE MAINTENANCE MODULE (RMM)	NTZZ12BB
EMB2-16-APU-1	APPLICATION PROCESSING UNIT	NTZZ44AA
EMB2-16-ASU-1	CCS7 32MEG LIU (V.35) - ISG	NTZZ30CP
EMB2-16-ASU-2	CCS7 32MEG LIU (FAULT-SEC.)	NTZZ30TC
EMB2-16-ASU-3	CCS7 32MEG E-LIU (CBI)	NTZZ44DC

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EMB2-16-ASU-4	ETHERNET I/F UNIT WITH 32MEG ASU PROCESS	NTZZ30ED
EMB2-16-ASU-5	NIU WITH 32MEG ASU PROCESSOR	NTZZ30MB
EMB2-16-ASU-6	XLIU WITH 32MEG ASU PROCESSOR	NTZZ30NB
EMB2-16-ASU-7	HIGH SPEED LINK (HSL) UNIT	NTZZ30RA
EMB2-16-BLK-3	CABINETIZED BULKHEAD AND CABLE ASSEMBLY	NTZZ44JA
EMB2-16-BLK-4	NON CABINETIZED BULKHEAD AND CABLE ASSEM	NTZZ44HA
EMB2-16-CAB-1	CABLE KIT (CABINETIZED)	NTZZ30QB
EMB2-16-CAB-2	C01/C02 TO AISLE ALM1/2 CABLE ASSEMBLY	NTZZ46FA
EMB2-16-CAB-3	BAND ALARM/POWER CABLE ASSEMBLY	NTZZ46GA
EMB2-16-CLK-1	DMS-BUS SYSTEM CLOCK	NTZZ44MP
EMB2-16-CLK-2	ENHANCED DMS-BUS SYSTEM CLOCK	NTZZ44NP
EMB2-16-CNV-48V	POWER CONVERTER (48V)	NTZZ44NA
EMB2-16-CPU-1	16MHZ, 16MEG DRAM PROCESSOR WITH RTIF	NTZZ44PR
EMB2-16-EIU-3	ETHERNET I/F UNIT FOR BCS34 AND ABOVE	NTZZ30EC
EMB2-16-ELPP	ENHANCED LINK PERIPHERAL PROCESSOR(ELPP)	NTZZ49AA
EMB2-16-FIU-2	ESF FRAME RELAY INTERFACE UNIT	NTZZ30LA
EMB2-16-FLIS-1	FLIS CABINET	NTZZ30PN
EMB2-16-FLIU-2	FIBERIZED LIU SHELF ASSEMBLY	NTZZ30HB
EMB2-16-LI-20	CCS7 8MEG E-LIU (CBI)	NTZZ44DB
EMB2-16-LI-21	CCS7 8MEG E-LIU (JAPAN ISUP WITH CBI)	NTZZ44EB
EMB2-16-LIU-13	CCS7 8MEG LIU (FAULT-SEC.)	NTZZ30TB
EMB2-16-LIU-9	X.25/X.75 LINK INTERFACE UNIT	NTZZ30NA
EMB2-16-LIU7-14	CCS7 8MEG LIU (V.35) - ISG	NTZZ30CN
EMB2-16-LPP	LINK PERIPHERAL PROCESSOR(LPP) CABINET	NTZZ44LP
EMB2-16-NIU	NETWORK INTERFACE UNIT	NTZZ30MA
EMB2-16-VPU-1	VOICE PROCESSING UNIT	NTZZ44BA
EMB2-18-CPC-2	ISDN COMMON PERIPHERAL CONTROL MODULE	NTZZ17GB
EMB2-18-CPC-3	ISDN CPCI COMMON PERIPHERAL CONTROL MODU	NTZZ17DA
EMB2-18-CPC-4	TMS/ETMS LTCI+	NTZZ17GM
EMB2-18-CPC-5	ISDN COMMON PERIPH CNTRL COMMON CP	NTZZ17GJ
EMB2-18-CPC-6	ENHANCED DIGITAL TRUNK CONTROLLER ISDN (	NTZZ17SU
EMB2-18-DCH-1	D-CHANNEL HANDLER	NTZZ17BA
EMB2-18-004	ISDN COCOMMON PERPH CNTRL MODULE	NTZZ17CA
EMB2-19-DCH-2	ENHANCED D-CHANNEL HANDLER	NTZZ17BB
EMB2-19-LCME-2	ISDN 2B1Q LINE CONCENTRATING MODULE	NTZZ17HB
EMB2-19-LCME-3	ISDN 2B1Q LINE CONCENTRATING MODULE	NTZZ17HC
EMB2-19-002	ISDN LINE CONCENTRATING EQUIPMENT	NTZZ17EB
EMB2-20-CP-1	INTERNATIONAL CIPE COMMON CIRCUIT PACK	NTZZ37BA
EMB2-20-CP-3	INTERNATIONAL CDSN COMMON CP	NTZZ37YA
EMB2-20-IOC-3	INTERNATIONAL CIOE IOC PACKAGE	NTZZ37CR
EMB2-20-MTD	INTERNATIONAL CIOE MTD PACKAGE	NTZZ37BM
EMB2-20-ROS-5	STRATUM 2.5 ROS H/W PACKAGE (CIOE)	NTZZ32HN
EMB2-20-006	INTERNATIONAL CIOE	NTZZ37AM
EMB2-24-CMR-1	CLASS MODEM RESOURCE (RSC-S)	NTZZ12UA
EMB2-24-RCC-11	RSC-S COOLING UNIT KIT	NTZZ12ZM
EMB2-24-RCC-12	REMOTE CLUSTER CONTROLLER 2 SHELF	NTZZ12XP
EMB2-24-RCC-15	REMOTE CLUSTER CONTROLLER 2 SHELF	NTZZ12XF
EMB2-24-RCC-2	RCC2 EXTENSION SHELF FILLER KIT	NTZZ12KA
EMB2-24-RCC-3	RCC2 EXTENSION SHELF LEFT FILLER KIT	NTZZ12WA
EMB2-24-RCC-31	PERIPHERAL LOADER BB (RSC-S)	NTZZ02UB
EMB2-24-RCC-9	REMOTE CLUSTER CONTROLLER 2 SHELF PACKFI	NTZZ12XB
EMB2-24-RMM-1	STANDARD REMOTE MAINTENANCE MODULE (FOR	NTZZ12JA
EMB2-24-UTR-1	UNIVERSAL TONE RECEIVER (RSC-S)	NTZZ12VA
EMB2-99-FIU	PC KIT FOR FRAME RELAY SERVICE	NTZZ99AK

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EMB2-99-ISDN-2	PRODUCT CHANGE KIT NT6X44AA TO NTAX78AA	NTZZ99AM
EMB2-99-OPM-1	PRODUCT CHANGE KIT	NTZZ99AF
EMB2-99-XPM-1	XPM PC KIT FOR NT6X02AA	NTZZ04EA
EMB2-99-XPM-2	XPM PC KIT FOR NT6X02AC	NTZZ04GA
EMB2-99-XPM-5	XPM TO XPM PLUS PRODUCT CHANGE KIT (WITH	NTZZ99AN

EMB3: DIGITAL NETWORK SUBSYSTEMS MENU

EMB3-01-CLK-2	NET CLOCK INTERFACE SUPERNODE	NTZZ07DA
EMB3-01-NET-1	DOUBLE SHELF NETWORK	NTZZ07BA
EMB3-01-NET-10	ENET IN C42 (S/DMS) CABINET	NTZZ10LC
EMB3-01-NET-2	DSN COMMON CP	NTZZ07 NTZZ07NA
EMB3-01-NET-3	DOUBLE SHELF NETWORK W/O NETWORK PORTS	NTZZ07QA
EMB3-01-NET-4	INTERNATIONAL DOUBLE SHELF NETWORK	NTZZ41PA
EMB3-01-PORT-1	NETWORK PORT CP	NTZZ07 NTZZ07MA
EMB3-01-000	DOUBLE SHELF NETWORK EQUIPMENT FRAME	NTZZ07AA
EMB3-01-001	CABINETIZED DUAL SHELF NETWORK (MODEL B	NTZZ47FA
EMB3-01-701	REFURBISHED DSNE	NTZZ07AD
EMB3-01-711	REFURBISHED DSN MODULE	NTZZ07AG
EMB3-01-721	DSN FACEPLATES	NTZZ07AH
EMB3-02-000	SPEECH LINK CONNECTING FRAME	NTZZ21AA
EMB3-03-000	DIGITAL NETWORK CONNECTING FRAME	NTZZ20AA
EMB3-05-BKH-1	48 DS-30 BULKHEAD ASSEMBLY	NTZZ10DA
EMB3-05-BKH-2	112 DS-30 BULKHEAD ASSEMBLY	NTZZ10EA
EMB3-05-BKH-3	FIBER BULKHEAD ASSEMBLY	NTZZ10FA
EMB3-05-BKH-4	STREAMLINE BULKHEAD ASSEMBLY	NTZZ10PA
EMB3-05-IF-2	QUAD DS-512 FIBER I/F PB	NTZZ10HA
EMB3-05-IF-3	3 DS-512/16 DS-30 ENET I/F PB	NTZZ10MA
EMB3-05-XPT-1	16K X 16K CHAN TERM XPT CP	NTZZ10JA
EMB3-05-XPT-2	16K X 16K CHAN XPT CP	NTZZ10KA
EMB3-06-006	64K ENHANCED NETWORK	NTZZ10NC
EMB3-06-007	ENHANCED NETWORK SHELF ASSEMBLY PACKAGE	NTZZ10BC
EMB3-06-008	C42 FSP AND COOLING UNIT (-48V)	NTZZ10CU
EMB3-06-009	C42 FSP AND COOLING UNIT (-60V)	NTZZ10CW
EMB3-06-011	ENET 16M CPU	NTZZ10CD

EMB4: CENTRAL CONTROL SUBSYSTEMS MENU

EMB4-02-SLM-3	SLM COMMON CP	NTZZ01BC
EMB4-02-SLM-5	SYSTEM LOAD MODULE III	NTZZ34JC
EMB4-03-CLK-1	DMS SYSTEM CLOCK	NTZZ34JD
EMB4-03-CPU-10	SNSE MS PROCESSOR	NTZZ34JF
EMB4-03-CPU-11	SN/SNSE BRISC SR70EM CPU	NTZZ01SP
EMB4-03-CPU-2	SUPERNODE SERIES 20 CPU	NTZZ01GA
EMB4-03-CPU-3	SUPERNODE SERIES 30 CPU	NTZZ01HA
EMB4-03-CPU-4	SUPERNODE SERIES 40 CPU	NTZZ01JA
EMB4-03-CPU-6	SUPERNODE BRISC 50/60 CPU	NTZZ01SB
EMB4-03-CPU-7	SUPERNODE BRISC 70 CPU	NTZZ01SM
EMB4-03-CPU-8	SUPERNODE BRISC 50/50MX/60 CPU	NTZZ01SC
EMB4-03-CPU-9	SNSE SERIES 20 PROCESSOR	NTZZ34JE
EMB4-03-FFP-1	I/F FILLER FACE PLATE	NTZZ01EA
EMB4-03-IF-10	INITIAL ENHANCED NETWORK INTERFACE - 128	NTZZ01NN
EMB4-03-IF-3A	INITIAL ENHANCED NETWORK INTERFACE	NTZZ01NB
EMB4-03-IF-4	INTERMEDIATE ENHANCED NETWORK INTERFACE	NTZZ01PA

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EMB4-03-IF-5	FINAL ENHANCED NETWORK INTERFACE	NTZZ01QA
EMB4-03-IF-6	LINK INTERFACE FOR FLIS	NTZZ01ZA
EMB4-03-IF-8	FINAL ENHANCED NETWORK INTERFACE - 128 P	NTZZ01QM
EMB4-03-MEM-2	24 MBYTE MEMORY	NTZZ01LA
EMB4-03-MS-1	16M MS PROCESSOR AND RTIF	NTZZ01TM
EMB4-03-004	4 PORT NETWORK & IOC I/F FOR BCS34 & ABV	NTZZ01CB
EMB4-03-005	4 PORT LIM/LPP INTERFACE - BCS34 & ABOV	NTZZ01DB
EMB4-03-006	4 PORT NET.& IOC I/F FOR CAB. DMS - BCS4	NTZZ01UB
EMB4-03-007	4 PORT LIM/LPP I/F FOR CAB. DMS - BCS34&	NTZZ01VB
EMB4-04-APC-7	APC (APPLICATION PROCESSOR CABINET)	NT9X80CA
EMB4-04-APL	APC AP LEFT (C/42)	NTZZ35QA
EMB4-04-APR	APC AP RIGHT (C/42)	NTZZ35SA
EMB4-04-FPL	APC FP LEFT (C/42)	NTZZ35RA
EMB4-04-FPR	APC FP RIGHT (C/42)	NTZZ35TA
EMB4-04-SDF-1	APC SD FULL (GLOBAL PWR-C/42)	NTZZ35ZA
EMB4-04-SDL-1	APC SD LEFT (GLOBAL PWR-C/42)	NTZZ35XA
EMB4-04-SDR-1	APC SD RIGHT (GLOBAL PWR-C/42)	NTZZ35YA
EMB4-05-BUL	SUPERNODE BULKHEAD PANEL ASSY	NTZZ13MA
EMB4-05-001	SUPERNODE CABINET (C42)	NTZZ01RG
EMB4-06-ENI-4	DMS SUPERNODE SE ENI F-BUS COMMON CP	NTZZ34GB
EMB4-06-ENI-5	DMS SNSE 4K ENET	NTZZ34FB
EMB4-06-IF-1	DMS SUPERNODE SE	NTZZ34CA
EMB4-06-IF-2	DMS SUPERNODE SE	NTZZ34DA
EMB4-06-IF-3	DMS SUPERNODE SE	NTZZ34JA
EMB4-06-LIS-4	DMS SUPERNODE SE LIS COMMON CP	NTZZ34EC
EMB4-06-PWR-1	GLOBAL +5V POWER CONVERTER	NTZZ34PA
EMB4-06-PWR-2	GLOBAL REDUNDANT POWER CONVERTER	NTZZ34PB
EMB4-06-PWR-3	GLOBAL +5V POWER CONVERTER	NTZZ34PC
EMB4-06-PWR-5	GLOBAL +5/-5V POWER CONVERTER	NTZZ34PE
EMB4-06-PWR-6	GLOBAL +5/+12V POWER CONVERTER	NTZZ34PF
EMB4-06-011	DMS SUPERNODE SE	NTZZ34AH

EMB5: INPUT/OUTPUT SUBSYSTEMS MENU

EMB5-01-IOC-4	INPUT/OUTPUT CONTROLLER MODULE	NTZZ09CC
EMB5-01-TC-2	I/O TERM CONT AUTO DIALBACK	NTZZ09EA
EMB5-01-000	INPUT/OUTPUT EQUIPMENT FRAME	NTZZ09AA
EMB5-03-BMC-1	BMC MOUNTING HARDWARE FOR CIOE MODEL B	NTZZ32QD
EMB5-03-DPP-2	DPP MOUNTING HARDWARE	NTZZ32QB
EMB5-03-IOC-2	I/O CONTROLLER MODULE FOR CIOE MODEL B	NTZZ32EN
EMB5-03-IOC-3	I/O CONTROLLER MODULE PACKAGE	NTZZ32EB
EMB5-03-MTD	MAGNETIC TAPE DRIVE ASSEMBLY	NTZZ32BA
EMB5-03-MTD-2	MAGNETIC TAPE DRIVE ASSEMBLY (-48V) FOR	NTZZ32BN
EMB5-03-MTD-3	MAGNETIC TAPE DRIVE ASSEMBLY MODEL B CIO	NTZZ32LB
EMB5-03-ST3	STRATUM II ROS H/W PACKAGE (CIOE)	NTZZ32JN
EMB5-03-002	CABINETIZED INPUT/OUTPUT EQUIPMENT MODEL	NTZZ47EC
EMB5-04-SCSI-1C	DPP SHELF,	NTZZ09DD
EMB5-04-SCSI-1N	DPP SHELF	NTZZ09AD
EMB5-04-SCSI-1T	DPP SHELF,	NTZZ09BD
EMB5-04-SCSI-2C	DPP SHELF,	NTZZ09ED
EMB5-04-SCSI-2T	DPP SHELF,	NTZZ09CD

EMB6: OFFICE ALARM VISUAL AND AUDIBLE EQUIPMEN

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EMB7: MERIDIAN BUSINESS SERVICES MENU

EMB8: OPERATOR EQUIPMENT MENU

EMB8-01-ASY-1	CAB CONCR FLR E/Q ZONE 1-3 ANCHOR ASSY	NTZZ29GA
EMB8-01-ASY-2	CAB CONCR FLR E/Q ZONE 4-7 ANCHOR ASSEMB	NTZZ29HA
EMB8-01-ASY-3	CABINET CONCR FLR NON-E/Q ANCHOR ASSY	NTZZ29JA
EMB8-01-CBT	COMPUTER BASED TRAINING SYSTEM	NTZZ29KA
EMB8-01-CTCP	CABLE TROUGH COVER PLATES	NTZZ29EA
EMB8-01-CTEP	CABLE TROUGH END PLATES	NTZZ29FA
EMB8-01-MFA	MODEM FILLER ASSEMBLY	NTZZ29NA
EMB8-02-JA-2	TOPS MPX HEADSET JACK ASSEMBLY 10 FOOT	NTZZ36AA
EMB8-02-JA-3	TOPS MPX HEADSET JACK ASSEMBLY	NTZZ36EA
EMB8-03-001	TOPS IWS INTEL (166 MHZ) PLATFORM WITHOU	NTZZ36HA
EMB8-03-002	IWS INTEL (166 MHZ) W/O MONITOR W/ PCI A	NTZZ36HB

EMB9: CELLULAR MOBILE SYSTEMS MENU

EMB9-03-DSP-3	MTX - DSPM COMMON CP	NTZZ38RA
EMB9-03-CGM-1	MTXD - FILLER PANEL ASSEMBLY KIT	NTZZ38EM
EMB9-03-DRS-B	DICP - BROWN CABINET	NTZZ38TA
EMB9-03-DRS-G	DICP - GRAY CABINET	NTZZ38SA
EMB9-03-DSP-1	DICP - DSPM SHELF KIT	NTZZ38LA
EMB9-03-DSP-2	MDSP - DSPM SHELF KIT	NTZZ38MA
EMB9-03-FFP	FILLER FACE PLATE PACKAGE	NTZZ38QA
EMB9-03-ICP-1	MTX - ICP COMMON CP (FOR < BCS32+)	NTZZ38WA
EMB9-03-ICP-2	MTX - ICP COMMON CP (FOR >= BCS32+)	NTZZ38XA
EMB9-03-ICP-3	MTX - ICP COMMON CP (FOR XPM PLUS)	NTZZ38YA
EMB9-03-IOE-1	MTXD - I/O BASIC (UNIVERSAL)	NTZZ38AM
EMB9-03-MTD-1	MTXD - MTD ASSEMBLY	NTZZ38DM
EMB9-03-PTM-1	MTXD - PTM	NTZZ38HM
EMB9-10-ICRM-1	ICRM - DUPLEX	NTZZ38AA
EMB9-10-ICRM-2	ICRM - SIMPLEX	NTZZ38BA
EMB9-10-ICRM-3	ICRM EXP SHELF - DUPLEX	NTZZ38CA
EMB9-10-ICRM-4	ICRM EXP SHELF - SIMPLEX	NTZZ38DA
EMB9-15-000	MDSP (GREY)	NTZZ38BM
EMB9-15-MDSP-1	MDSP (GREY)	NTZZ60AA
EMB9-15-MDSP-2	MDSP (BROWN)	NTZZ60KA

EMB10: SL-100 EQUIPMENT MENU

EMB10-08-001	MNET (BROWN)	NTZZ38LM
EMB10-08-000	MNET (GREY)	NTZZ38KM
EMB10-12-000	MCAM (GREY)	NTZZ38UA
EMB10-12-MCAM-2	MCAM (BROWN)	NTZZ60NA
EMB10-12-MCAM-1	MCAM (GRAY)	NTZZ60MA
EMB10-13-001	MCGM (BROWN)	NTZZ38PA
EMB10-13-MCGM-2	MCGM (BROWN)	NTZZ60LA
EMB10-13-MCGM-1	MCGM (GREY)	NTZZ60JA
EMB10-14-000	MCSS (GREY)	NTZZ38FM
EMB10-14-001	MCSS (BROWN)	NTZZ38JM
EMB10-14-MCSS-2	MCSS (BROWN)	NTZZ60FA

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BB ACTIVE EQUIPMENT

EMB10-17-001	MCEX (BROWN)	NTZZ38JA
EMB10-17-MCEX-1	MCEX (GREY)	NTZZ60EA
EMB10-20-000	MCTM - ISDN (GREY)	NTZZ38EA
EMB10-20-MCTMI	MCTM - ISDN (GREY)	NTZZ60BA
EMB10-21-MCTMI	MCTM - ISDN (BROWN)	NTZZ60CA

EMB11: MAINTENANCE AND TEST EQUIPMENT MENU

EMB11-01-PRT-6	MAP PRINTER (DEC LA30)	NTZZ14ED
EMB11-01-PRT-7	MAP PRINTER (DEC LA400)	NTZZ14EE
EMB11-01-001	MAP FURNITURE WITH JACKS	NTZZ14BA
EMB11-01-004	SIMPLEX WORKSTATION	NTZZ14UA
EMB11-01-005	SIMPLEX WORKSTATION	NTZZ14VA
EMB11-01-006	WORKSTATION FOR REMOTE ACCESS	NTZZ14WA

EMB13: MISCELLANEOUS SUBSYSTEMS MENU

EMB13-01-ALM-1	ALARM EXTENSION	NTZZ18DA
EMB13-01-003	MISCELLANEOUS EQUIPMENT FRAME	NTZZ18AB
EMB13-01-005	MODEL B MISCELLANEOUS EQUIPMENT CABINET	NTZZ47PC
EMB13-02-000	MAINTENANCE SPARE STORAGE FRAME	NTZZ27BA
EMB13-05-003	CABINETIZED REMOTE MISCELLANEOUS EQUIPME	NTZZ31QB
EMB13-05-010	RME POWER DISTRIBUTION MODULE W/EAS	NTZZ15CE
EMB13-08-CDA-1	COOK DIGITAL ANNOUNCER 4 CHAN 2M TRK ACC	NTZZ23MA
EMB13-08-CDA-10	COOK DIGITAL ANNOUNCER 8 CHAN 4M TRK FIX	NTZZ23WA
EMB13-08-CDA-2	COOK DIGITAL ANNOUNCER 8 CHAN 4M TRK	NTZZ23NA
EMB13-08-CDA-3	COOK DIGITAL ANNOUNCER 2 CHAN 1M TRK FIX	NTZZ23PA
EMB13-08-CDA-4	COOK DIGITAL ANNOUNCER 4 CHAN 2M TRK BAS	NTZZ23QA
EMB13-08-CDA-5	COOK DIGITAL ANNOUNCER 4 CHAN 2M TRK FIX	NTZZ23RA
EMB13-08-CDA-6	COOK DIGITAL ANNOUNCER 4 CHAN 1M TRK SP/	NTZZ23SA
EMB13-08-CDA-7	COOK DIGITAL ANNOUNCER 6 CHAN 3M TRK FIX	NTZZ23TA
EMB13-08-CDA-8	COOK DIGITAL ANNOUNCER 8 CHAN 4M TRK BAS	NTZZ23UA
EMB13-08-CDA-9	COOK DIGITAL ANNOUNCER 8 CHAN 1M TRK SP/	NTZZ23VA
EMB13-08-DTH-1	DTT READY DTH-ROTL UNIT	NTZZ18PB
EMB13-09-005	CABINETIZED MISC SPARE STORAGE - MODEL B	NTZZ27FB

EMB14: TABLES MENU

EMB14-01-000	TABLE A - TRUNK MODULE PROVISIONABLE CAR	BB-TAB-A
EMB14-02-000	TABLE B - I/O CONTROLLER MODULE	BB-TAB-B
EMB14-05-000	TABLE E - REMOTE MAINTENANCE MODULE PROV	T_RMM_CARDS

EMB15: COMMON SYSTEM EQUIPMENT MENU

EMB16: POWER REQUIREMENTS MENU

EMB16-02-FFP-1	FILLER PANEL ASSEMBLY A/B	NTZZ13GA
EMB16-02-FP-1	FUSE PANEL "A/B" FEED	NTZZ13FA
EMB16-02-FP-2	A AND B FUSE PANELS	NTZZ13CA
EMB16-02-000	POWER DISTRIBUTION CENTRE	NTZZ13EA
EMB16-02-003	POWER DISTRIBUTION CENTER (CPDC) CABINET	NTZZ47CB
EMB16-02-010	PDC BOTTOM-FEED	NTZZ13UB
EMB16-02-020	PDC TOP-FEED (U.L. LISTED)	NTZZ13RE

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BB ACTIVE EQUIPMENT

EMB16-02-021	PDC TOP-FEED FULLY-EQUIPPED (U.L. LISTED	NTZZ13TE
EMB16-02-022	PDC BOTTOM-FEED (U.L. LISTED)	NTZZ13VE
EMB16-02-023	PDC BOTTOM-FEED FULLY-EQUIPPED (U.L. LIS	NTZZ13WE
EMB16-02-024	FULLY EQUIPPED TOP OR BOTTOM FEED PDC	NTZZ13GB
EMB16-04-BFK-2	CMIS MSP B-FEED FILTERED BATTERY FILLER	NTZZ45MA
EMB16-04-BFK-3	CMIS MSP B-FEED FILTERED BATTERY FILLER	NTZZ45MM

EMB17: GROUNDING REQUIREMENTS MENU

EMB18: CABLES MENU

EMB19: MULTIMEDIA SUBSYSTEMS MENU

EMB19-02-INV	MDS INVERTER BUILDING BLOCK	NTZZ42MA
EMB19-02-I0C-2	MDS IOC (RS232) BUILDING BLOCK	NTZZ42LA
EMB19-02-I0C-3	MDS IOC (V.35) BUILDING BLOCK	NTZZ42KB
EMB19-02-I0C-4	IOC (V.35) BUILDING BLOCK	NTZZ42KC
EMB19-02-I0C-5	IOC (V.35) BUILDING BLOCK	NTZZ42KD
EMB19-03-AIK-1	MERIDIAN APPLIC. CAB. ANCHORING AND ISOL	NTZZ50GA
EMB19-03-ALM-1	MS-1 ALARM INTERFACE BUILDING BLOCK	NTZZ50KA
EMB19-03-CTCP-1	MERIDIAN APPLIC. CAB. CABLE TROUGH COVER	NTZZ50EA
EMB19-03-CTEC-1	MERIDIAN APPLIC. CAB. CABLE TROUGH END C	NTZZ50EM
EMB19-03-DNET-1	MS-1 DATANET BUILDING BLOCK	NTZZ50CM
EMB19-03-HDW-1	MERIDIAN APPLICATIONS CABINET HARDWARE -	NTZZ50DA
EMB19-03-HDW-2	MERIDIAN APPLICATIONS CABINET HARDWARE -	NTZZ50DM
EMB19-03-LEC-1	MERIDIAN APPLIC. CAB. LINEUP END COVER (	NTZZ50FA
EMB19-03-LEC-2	MERIDIAN APPLIC. CAB. LINEUP END COVER (	NTZZ50FM
EMB19-03-MGW-1	MS-1 GATEWAY LINK HARDWARE	NTZZ50PA
EMB19-03-OCEX-1	OPERATIONS NODE - CONFERENCE NODE EXPANS	NTZZ50MA
EMB19-03-OCEX-2	OPERATIONS NODE - CONFERENCE NODE EXPANS	NTZZ50PM
EMB19-03-PRT-1	MS-1 SERIAL PRINTER BUILDING BLOCK	NTZZ50HA
EMB19-03-UDS-1	MS-1 19.2K/9.6K UDS MODEM BUILDING BLOCK	NTZZ50JA
EMB19-03-UDS-2	MS-1 UDS 224AT/D DIALUP ACCESS BUILDING	NTZZ50LA
EMB19-03-VDT-1	MS-1 M4120 VOICE AND DATA TERMINAL	NTZZ50GM
EMB19-03-VDT-2	MS-1 M4110 DATA TERMINAL	NTZZ50NM
EMB19-03-000	MS-1 OPERATIONS CONFERENCE NODE CABINET	NTZZ50AA
EMB19-03-001	MS-1 OPERATIONS NODE CABINET	NTZZ50AM
EMB19-03-002	MS-1 CONFERENCE NODE CABINET	NTZZ50BA
EMB19-03-003	MERIDIAN AUXILIARY CABINET-OVERHEAD CABL	NTZZ50BM
EMB19-03-004	MERIDIAN AUXILIARY CABINET - RAISED FLR	NTZZ50CA
EMB19-03-006	MS-1 OPERATIONS CONFERENCE NODE CABINET	NTZZ50MM
EMB19-03-007	MS-1 OPERATIONS NODE CABINET	NTZZ50NA
EMB19-03-48PE	MS-1 CONFERENCE NODE 48-PORT EXPANSION	NTZZ50KM
EMB19-04-BDTL	BACKUP DTL KIT	NTZZ51LA
EMB19-04-FDDI	FDDI KIT	NTZZ51PA
EMB19-04-HUB1	HUB UNIT 12-PORT	NTZZ52CA
EMB19-04-MM-1	MODEM SHELF	NTZZ51GA
EMB19-04-OC-3	OPERATIONS CONTROLLER SHELF	NTZZ51DE
EMB19-04-OC-5	OPERATIONS CONTROLLER SHELF	NTZZ51DG
EMB19-04-RDTL	REDUNDANT DTL KIT	NTZZ51KA
EMB19-04-SC-3	UNIX-BASED SERVICE CONTROLLER SHELF	NTZZ51EC
EMB19-04-SC-4	SERVICE CONTROLLER SHELF - NAV BASE 002	NTZZ51ED

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EMB19-04-SDTL	STANDARD DTL KIT	NTZZ51HA
EMB19-04-UM	UNIVERSAL MODEM KIT	NTZZ51NA
EMB19-04-VME	VME DISK TM KIT	NTZZ51QA
EMB19-04-VME1	VME DISK TM KIT	NTZZ51QB
EMB19-04-001	NAV LAN BAY	NTZZ52AA
EMB19-04-003	NAV CONTROLLER BAY B003	NTZZ51AB

EMB20: PEC INDEX

SECTION EMB1

INTRODUCTION

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INTRODUCTION

General

This practice provides all the necessary information and guidelines in configuring the DMS-100 Family switches based on office requirements. The document does not replace or displace any standard documentation but rather supplements them from an engineering point of view.

The information contained in the Engineering Manual is derived from DMS standard documentation. This section consolidates the most important aspects of DMS equipment structure into a compact handbook form to provide easy access to information. The Engineering Manual is intended to summarize, not replace the standard documentation and in the event of conflict, the standard documentation supercedes.

Practice Application

The information contained in this volume is applicable to the DMS Building Block approach to ordering Northern Telecom equipment. DMS-100 Family equipment which has been made generally available to the customers of Northern Telecom and is custom engineered is located in the Building Block Engineering Manual Active (EMB) volume. Engineering Manual Retired Equipment (EMC) should be referred to for Northern Telecom equipment that is no longer classed as "generally available" (Retired, A&M, etc.).

Issue Control:

The Engineering Manual's Release number is of the form XX.YY, where XX is incremented for each major yearly release and YY is incremented to show each minor quarterly release of that year.

Reason For Reissue

This practice has been reissued to reflect the changes to date in the DMS-100 Family office configuration. Change bars ("|") have been included in sections classed as "Release 01.01" to show changes from Release 07.01 (previous release).

Module Structure Organization

a) Module Structures

The information in the Engineering Manual Active Equipment is broken down into the following subsystems from a functional viewpoint:

EMB1 : Introduction
EMB2 : Peripheral Modules
EMB3 : Digital Network Subsystems
EMB4 : Central Control Subsystems
EMB5 : Input/Output Subsystems
EMB6 : Office Alarm Visual and Audible Equipment
EMB7 : Meridian Business Services Equipment
EMB8 : Operator Equipment
EMB9 : Cellular Mobile Subsystems
EMB10 : Meridian Cabinet Equipment
EMB11 : Maintenance and Test Equipment
EMB12 : (Reserved for Future Use)
EMB13 : Miscellaneous Subsystems
EMB14 : Tables
EMB15 : Common System Equipment
EMB16 : Power Requirements
EMB17 : Grounding Requirements
EMB18 : Cables
EMB19 : Multimedia Subsystems
EMB20 : Index

The information contained within each section (as listed above) is organized into module structures. A module structure may be a frame and mountable equipment, a shelf assembly and mountable equipment, or a functional grouping of circuit packs. Module structures appear in the section immediately following the frame on which the module structure can be mounted. Module structures that can be mounted on more than one type of frame will appear in only one place within the section. Different versions of the same frame are listed together.

b) Section Numbering

The section numbering reflects the organization of the module structures as mentioned above. A section number looks like the following:

EMBn-AAAAA

where:

EMBn = section of the DMS Building Block Engineering Manual Active Equipment (as listed above).

AAAAA = module structure number

- i) If the module structures are organized into frames and modules (as in peripheral modules - EMB2), then the numbering structuring is as follows:

AAAAA = FR-BBBB

where:

FR = a two digit frame number.

BBBB = a three digit version number of a frame.
(For example, an RLM frame has three versions

FR = 04 for the RLM frame number
BBBB = 000 for NT0X45BH
001 for NT0X45BJ
002 for NT0X45BK)

Note: I00 would represent a frame used for international applications.

or BBBB = a three or four character alphanumeric with a one digit version number for a module.

ex. BBBB = DCM-2

The 3-4 character alphanumeric is closely tied to the functional name of the module structure. The one digit version number distinguishes between module structures with the same 3-4 character alphanumeric. A 3-4 character alphanumeric beginning with the letter "I", indicates that the module

structure is used for international applications.

NOTE: The identifier BBBB is ordered alphabetically within each frame. International module structures are listed last within each frame.

- ii) If the module structures are organized into functional modules (as in Meridian Business Services - EMB7), then the numbering structure is as follows:

AAAAA = CCCC

where:

CCCC = a three or four character alphanumeric with a one digit version number

ex. CCCC = COAX-1

The 3-4 character alphanumeric is closely tied to the functional name of the module structure. The one digit version number distinguishes between module structures with the same 3-4 character alphanumeric.

NOTE: The identifier CCCC is ordered alphabetically within each subsystem.

c) Examples

1. EMB2-01-000
Section EMB2 - Peripheral Modules section
Frame 01 - Trunk Module Equipment Frame
Frame Version 000 - Trunk Module Equipment Frame (NTZZ06AA)
2. EMB2-06-000
Section EMB2 - Peripheral Modules section
Frame 06 - Common Periph Equip Frame
Frame Version 000 - Common Periph Equip Frame (NTZZ22AA)
3. EMB2-06-CMR-1
Section EMA2 - Peripheral Modules section
Frame 06 - CPE Frame
Module CMR - Class Modem Resource
Version 1 - NTZZ02EA

4. EMB3-05-BHK-3

Section 3 - Digital Network Subsystem
Frame 05 - Network Simplex Cabinet
Module BHK - Bulkhead Assembly
Version 3 - Fiber Bulkhead Assembly

Information Organization

a) Title Line

Each module structure within the Equipment Module Structure section begins with a title line.

Example

TRUNK MODULE EQUIPMENT FRAME NTZZ06AA

The title shows the standard name given to the module and its Product Engineering Code (PEC).

b) Header

The following information is contained in the headers:

RATING
ABBREVIATION NAME
ENGINEERING DESCRIPTION
REFERENCE DOCUMENTATION

i) RATING

RATING contains information on the status of the module structure. The following ratings are applicable to each module structure:

- "Check application date for NT0X45BH"

The user should verify whether or not this module is ready to order for the job to which the module will be applied before the user orders the module. This rating is usually applied to new modules.

- "Replaces NT0X45BE"

Indicates that the module is a replacement (newer version) of an existing module. The user should verify the application date before ordering the new module. The possibility of Field Retrofitting must also be investigated by the user.

- "To be rated MD"

Indicates that the module will be rated MD. The user is to verify the date when this module is to be no longer ordered.

- "To be replaced by NT0X45BL"

Indicates that the module will be replaced by a newer version or a different application. The user is to verify the date when this module is to be ordered. The possibility of Field Retrofitting must also be investigated by the user.

- "MD. Replaced by NT0X02AB"

Indicates that the module has been rated MD and has been replaced by the module indicated.

- "Rating Change Pending"

This rating acts as a warning to the user that one of the above ratings will be applied to the module in the near future.

- "Standard"

Indicates standard equipment where its application dates will not affect its application in jobs currently being engineered by the user.

- "MD"

Indicates that the module has been rated Manufacture Discontinued (MD).

- "A&M"

Indicates that the module may be ordered for additions or maintenance purposes on existing offices only. The module rated A&M cannot be ordered for new offices or offices where this module does not already exist.

ii) ABBREVIATION NAME

The standard NT short forms for the module structure is indicated here. This short form will be used in the writing of manufacturing specifications.

iii) ENGINEERING DESCRIPTION

A brief description of the module structure from a functional viewpoint is contained here.

iv) REFERENCE DOCUMENTATION

Reference to standard NT documents from which relate to the modular structure is listed here.

c) Equipment List

The equipment that is mounted on the module structure is listed in a table with the following headings:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

where:

EQUIPMENT = standard equipment title

PEC = Product Engineering Code assigned to the equipment. An appearance of "AR" (as required) indicates that there is more than one possible choice of equipment required.

ABBR = standard abbreviation for the equipment and unit number where applicable

QTY = quantity of the equipment to be provided

SHF POS = the shelf position of the equipment on a frame

CP POS = the circuit pack position of the equipment on a shelf. The appearance of an "R" with the position number indicates that the equipment is mounted at the rear of the shelf.

RULE = the provisioning rule reference number (an "AP" in this column indicates that the equipment is Always Provided with the module structure)

The information in this table is listed from the top of the frame to the bottom when the module structure refers to a frame, or it is listed from the left of a shelf to the right when the module structure is a shelf. Lines within this table are used to group the equipment into functional modules. Double lines are used to indicate information that applies to several functional modules (or none at all).

A single character flag could appear in the left most column adjacent to the standard equipment title to which it applies. These characters may be one of: #, \$, %, &, *, !, r

These flags are present to indicate a special rating which is applied to the PEC to which it is adjacent. This rating will be indicated at the end of the Equipment List. Possible ratings are the same as those for the Rating section of the header (see section b) item i) above).

d) Notes

This section contains general information which will aid the user in understanding the application of the module structure and in assigning equipment to the module structure. The "NOTES" section does not appear in all module structure sections.

e) Rule

The rules as referenced in the "RULE" column of the equipment list are listed in this section. Each rule outlines the conditions or rules that govern the assignment of the equipment to the module structure.

References

For further information on the DMS-100 Family equipment pertaining to this Engineering Manual Active Equipment, refer to the following References:

Informative References

DOCUMENT NUMBER	TITLE
EMA	Engineering Manual Active Equipment
EMR	Engineering Manual Retired Equipment
EMC	Engineering Manual Retired Building Block Equipment
MS_X____	Modular Structure Documents
NTP 297-1001-001	Master Index of Northern Telecom Practices
NTP 297-1001-450	DMS-100 Family Provisioning

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EMB2

PERIPHERAL MODULES CHAPTER ALL

PERIPHERAL MODULES CHAPTER ALL

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PERIPHERAL MODULES CHAPTER ALL

EMA2-06-ZZ37BC	INTERNATIONAL XPM NON-ISDN 48VDC COMMON	NTZZ37BC
EMA2-06-ZZ37BD	INTERNATIONAL XPM PLUS NON-ISDN 48VDC CO	NTZZ37BD
EMB2-01-IMT-4	INTERNATIONAL METALLIC TEST UNIT	NTZZ41AM
EMB2-01-IMT-5	INTERNATIONAL TRANSMISSION TEST UNIT	NTZZ41CM
EMB2-01-IMT-6	INTERNATIONAL TRANSMISSION TEST TRUNK	NTZZ41DM
EMB2-01-MOD-1	4 TOPS/ATT.CONVS MODEM CCTS	NTZZ06HA
EMB2-01-MTU-1	MULTILINE TEST UNIT	NTZZ06EA
EMB2-01-TTT-1	TRANSMISSION TEST TRUNK	NTZZ06GA
EMB2-01-TTU-1	TRANSMISSION TEST UNIT	NTZZ06FA
EMB2-02-IOM-1	IOM STORAGE MEDIA CARD KIT	NTZZ40AJ
EMB2-02-IOM-2	IOM MAIN CONTROLLER CARD KIT	NTZZ40AK
EMB2-02-ISM-1	CABINETIZED INTEGRATED SERVICES MODULE (	NTZZ47XA
EMB2-02-ISM-3	ISME WITH MSP	NTZZ40AB
EMB2-02-ISM-5	ISM SHELF (MTM)	NTZZ40AD
EMB2-02-ISM-7	ISM ALARM GROUP SHELVES	NTZZ40AF
EMB2-02-ISM-8	MISC. EQUIPMENT FOR CISM/ISM SHELVES W/I	NTZZ40AG
EMB2-02-UPI-1	ENHANCED LINE GROUP CONTROLLER ISDN	NTZZ17TU
EMB2-06-CMR-1	CLASS MODEM RESOURCE	NTZZ02EA
EMB2-06-CTD-1	CONTINUITY TONE DETECTOR	NTZZ04CA
EMB2-06-DS1-3	2 SCM DS-1 INTERFACES	NTZZ03FA
EMB2-06-DTC-1	DIGITAL TRUNK CONTROLLER	NTZZ04BA
EMB2-06-DTC-2	DS0A SIGNALING INTERFACE	NTZZ04AA
EMB2-06-DTC-4	DIGITAL TRUNK CONTROLLER FOR DWS	NTZZ04BB
EMB2-06-DTC-5	DTC WITH XPM+ FOR DWS	NTZZ04KA
EMB2-06-DTC-6	DTC WITH XPM+	NTZZ04HB
EMB2-06-DTC-7	DTC MODULE COMMON CIRCUIT PACKS WITH XPM	NTZZ04HD
EMB2-06-DTC-8	DTC MODULE WITH XPM+ FOR DWS	NTZZ04KD
EMB2-06-DTP	ISDN XPM PLUS DTC	NTZZ17SM
EMB2-06-DTP-1	ISDN XPM PLUS DTC	NTZZ17ST
EMB2-06-DTP1	ENHANCED DIGITAL TRUNK CONTROLLER ISDN (	NTZZ17SV
EMB2-06-DTX	ISDN XPM DTC	NTZZ17SA
EMB2-06-EISP	ENHANCED ISDN SIGNALLING PRE-PROCESSOR	NTZZ03AJ
EMB2-06-EP	ENHANCED PROCESSOR	NTZZ03AC
EMB2-06-GTR-1	30 GLOBAL TONE RECEIVER CIRCUITS	NTZZ02FC
EMB2-06-LGC-1	LINE GROUP CONTROLLER	NTZZ02BA
EMB2-06-LGC-2	LGC WITH XPM+	NTZZ02QA
EMB2-06-LGC-3	LGC+ WITH EDC	NTZZ02QM
EMB2-06-LGC-4	LGC+ MODULE W/EDC AND ADSI/SCWID	NTZZ02QN
EMB2-06-LGC-6	LINE GROUP CONTROLLER COMMON CP	NTZZ02QJ
EMB2-06-LGC-7	ISDN LINE GROUP CONTROLLER COMMON CP	NTZZ17RS
EMB2-06-LGP	ISDN XPM PLUS LGC	NTZZ17RM
EMB2-06-LGX	ISDN XPM LTC	NTZZ17RA
EMB2-06-LIF-1	10 DS30A LCM INTERFACES	NTZZ02KA
EMB2-06-LTC-1	LINE TRUNK CONTROLLER	NTZZ02CA
EMB2-06-LTC-2	LTC WITH XPM+	NTZZ02PA
EMB2-06-LTC-3	LTC+ WITH EDC	NTZZ02PM
EMB2-06-LTC-4	LTC+ MODULE WITH EDC AND ADSI/SCWID	NTZZ02PN
EMB2-06-LTC-6	LINE TRUNK CONTROLLER COMMON CP	NTZZ02PJ

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EMB2-06-LTC-7	ISDN LINE TRUNK CONTROLLER COMMON CP	NTZZ17QS
EMB2-06-LTC8	ENHANCED LINE TRUNK CONTROLLER ISDN (LTC	NTZZ17GL
EMB2-06-LTP	ISDN XPM PLUS LTC	NTZZ17QM
EMB2-06-LTX	ISDN XPM LTC	NTZZ17QA
EMB2-06-MPT-1	MESSAGE PROTOCOL AND TONE CIRCUITS FOR X	NTZZ02RA
EMB2-06-MPT-2	MESSAGE PROTOCOL AND TONE CIRCUITS FOR A	NTZZ02RB
EMB2-06-MPT-3	MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC	NTZZ02RC
EMB2-06-MPT-4	MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC	NTZZ02RD
EMB2-06-MVI-1	CPM2 SHELF FILLER FACEPLATE KIT	NTZZ12KJ
EMB2-06-NIF-1	16 DS30 NETWORK INTERFACES	NTZZ02GA
EMB2-06-NIF-2	16 DS30 NETWORK INTERFACES	NTZZ02GC
EMB2-06-NIF-4	4 DS30 NETWORK INTERFACES	NTZZ02AA
EMB2-06-NIF-6	DS512 NETWORK INTERFACE	NTZZ02HM
EMB2-06-NIF-7	DS512 NETWORK INTERFACE	NTZZ02HN
EMB2-06-RPC-1	RING/PAD CIRCUITS	NTZZ02SA
EMB2-06-RPC-2	RING/PAD CIRCUITS, FREQUENCY SELECTIVE R	NTZZ02SB
EMB2-06-SMA-18	SMA2 COMMON CP PACKFILL	NTZZ03SY
EMB2-06-SMA-25	SMA2/ESMA COMMON CP PACKFILL	NTZZ03SF
EMB2-06-SMS-3	SUBSCRIBER MODULE FOR SLC-96	NTZZ03BG
EMB2-06-SMS-4	SUBSCRIBER CARRIER MODULE-100S REMOTE (S	NTZZ03EF
EMB2-06-SMS-7	SMS+ COMMON CP (ON NT6X01AA)	NTZZ03BH
EMB2-06-SMS-8	SUBSCRIBER MODULE SLC-96 COMMON CP	NTZZ03BS
EMB2-06-SMSR-3	REMOTE SUBSCRIBER MODULE FOR SLC-96 W/XP	NTZZ03ED
EMB2-06-SMSR-5	SMS-R+ COMMON CP (ON NT6X01AA)	NTZZ03EG
EMB2-06-SMU-12	SMUI W/XPM+	NTZZ03RC
EMB2-06-SMU-14	SUBSCRIBER MODULE DMS-1U COMMON CP	NTZZ03DK
EMB2-06-SMU-16	SUBSCRIBER MODULE FOR DMS-1 URBAN COMMON	NTZZ03DM
EMB2-06-SMU-17	SMUI W/XPM+	NTZZ03RL
EMB2-06-SMU-2	ISDN SUBS MODULE FOR DMS-1 URBAN COMM CP	NTZZ03DL
EMB2-06-SMU-9	SUBSCRIBER MODULE FOR DMS-1U WITH XPM+	NTZZ03DE
EMB2-06-UP	SMS+ COMMON CP (ON NT6X01AA)	NTZZ03AB
EMB2-06-UPI-1	ISDN XPM PLUS DWS COMMON PERIPHERAL CONT	NTZZ17TM
EMB2-06-UPI-2	ISDN COMMON PERIPHERAL CONTROLLER MOD WI	NTZZ17TT
EMB2-06-UTR-1	30 UNIVERSAL TONE RCVR CCTS	NTZZ02FA
EMB2-06-UTR-2	30 UNIVERSAL TONE RCVR CCTS	NTZZ02FB
EMB2-06-UTR-3	30 UNIVERSAL TONE RCVR CCTS, INTERNATIONAL	NTZZ41CA
EMB2-06-UTR-4	UNIVERSAL TONE RECEIVER (RSC-S) (NT6X92B	NTZZ12VB
EMB2-06-UTR-5	NT6X92EA GLOBAL TONE RECEIVER (RSC-S)	NTZZ12VC
EMB2-06-XPL-1	XPM PERIPHERAL LOADER CP	NTZZ02UA
EMB2-06-ZZ37AC	CIPE, MODEL B, 48VDC, ISDN	NTZZ37AC
EMB2-06-ZZ37BB	INTERNATIONAL XPM PLUS ISDN 48VDC COMMON	NTZZ37BB
EMB2-06-ZZ37CB	CIPE PCM-30 ENHANCED I/F H/W KIT, UPPER	NTZZ37CB
EMB2-06-ZZ37CC	CIPE PCM-30 ENHANCED I/F H/W KIT, LOWER	NTZZ37CC
EMB2-06-ZZ37CL	CIPE PERSONALITY PLATE KIT, LOWER MODULE	NTZZ37CL
EMB2-06-ZZ37CN	DS30 NETWORK INTERFACE UPPER MODULE (A/B	NTZZ37CN
EMB2-06-ZZ37CP	DS30 NETWORK INTERFACE LOWER MODULE (A/B	NTZZ37CP
EMB2-06-ZZ37CQ	DS512 NETWORK INTERFACE (A/B CABINET)	NTZZ37CQ
EMB2-06-ZZ37CS	CIPE PCM-30 ENHANCED I/F H/W KIT, UPPER	NTZZ37CS
EMB2-06-ZZ37CT	CIPE PCM-30 ENHANCED I/F H/W KIT, LOWER	NTZZ37CT
EMB2-06-ZZ37CU	CIPE MODEL B BASIC BULKHEAD COVERPLATE K	NTZZ37CU
EMB2-06-ZZ41AA	INTERNATIONAL FRAME LGE/DTE NON-ISDN	NTZZ41AA
EMB2-06-ZZ41BA	INTERNATIONAL XPM NON-ISDN 48VDC COMMON	NTZZ41BA
EMB2-06-ZZ41DA	INTERNATIONAL FRAME LGE/DTE ISDN	NTZZ41DA
EMB2-06-ZZ41EA	INTERNATIONAL XPM ISDN 48VDC COMMON CP	NTZZ41EA

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PERIPHERAL MODULES CHAPTER ALL

EMB2-06-ZZ43AA	INTERNATIONAL XPM PLUS ISDN 48VDC COMMON	NTZZ43AA
EMB2-06-004	COMMON PERIPHERAL CONTROLLER EQUIPMENT F	NTZZ17AT
EMB2-07-IRG-1	RINGING GENERATOR (UK)	NTZZ41XT
EMB2-07-IRG-2	RINGING GENERATOR (CHINA)	NTZZ41YT
EMB2-07-IRG-3	RINGING GENERATOR (AUSTRALIA)	NTZZ41ZT
EMB2-07-LCM-2	LINE CONCENTRATING MODULE	NTZZ08BD
EMB2-07-RG4	RINGING GENERATOR (NORTH AMERICA)	NTZZ41WT
EMB2-07-003	INTERNATIONAL LINE CONCENTRATING EQUIPME	NTZZ41JA
EMB2-08-LCM-1	CLMI LINE DRAWER FILLERS	NTZZ33CA
EMB2-09-CPE-3	CABINETIZED COMMON PERIPHERAL EQUIPMENT	NTZZ47GD
EMB2-09-IRG-2	RINGING GENERATOR CABINET SYS (UK)	NTZZ08GT
EMB2-09-IRG-3	RINGING GENERATOR CABINET SYS (CHINA/AUS	NTZZ08HT
EMB2-09-IRG-4	RINGING GENERATOR CABINET SYS (JAPAN)	NTZZ08JT
EMB2-09-LCE-5	CABINETIZED LINE CONCENTRATING EQUIPMENT	NTZZ08EC
EMB2-09-LCE-6	CABINETIZED LINE MODULE ISDN	NTZZ47BC
EMB2-09-LCM-3	LCM FOR CLCE INTERNATIONAL MODEL B	NTZZ08MB
EMB2-09-LCM-4	LCM FOR CABINETIZED LCE MODEL B	NTZZ08BC
EMB2-09-RG1	RINGING GENERATOR CABINET SYS (NORTH AME	NTZZ08FT
EMB2-11-FFP-1	CCS7 ST FILLER FACEPLATES	NTZZ05GA
EMB2-11-STI-1	CCS7 SIG TERMINAL I/F	NTZZ05FA
EMB2-11-STI-2	CCS7 SIG TERMINAL I/F WITH TERMINATOR	NTZZ05DA
EMB2-11-ZZ37HC	INTERNATIONAL CMS7, MODEL B	NTZZ37HC
EMB2-11-000	MESSAGE SIGNALING 7 FRAME	NTZZ05AA
EMB2-11-003	CCS7 SIGNALING TERMINAL PAIR (MSB7)	NTZZ05BA
EMB2-11-004	CCS7 SIGNALING TERMINAL PAIR (ST7G)	NTZZ05EA
EMB2-11-005	SIGNALING TERMINAL 7 GROUP SHELF	NTZZ05CA
EMB2-12-FFP-1	ST FILLER FACE PLATE	NTZZ11EA
EMB2-13-BSP	BATTERY STRING PAIR	NTZZ19NA
EMB2-13-ESA	OPM ESA CP PACKAGE	NTZZ19QB
EMB2-13-OPMT	OPM MAINTENANCE TOOLS	NTZZ19MA
EMB2-14-ESA-2	RLCM ESA CP PACKAGE	NTZZ16DB
EMB2-14-FSP-1	RLCM FRAME SUPERVISORY PANEL W/O PWR DIS	NTZZ16BA
EMB2-14-FSP-2	RLCM FRAME SUPERVISORY PANEL E/W PWR DIS	NTZZ16CA
EMB2-14-IES-4	ESA CP PACKAGE	NTZZ16RA
EMB2-14-ILCM-2	INTERNATIONAL LINE CONCENTRATING MODULE	NTZZ43MB
EMB2-14-IRG-1	RINGING GENERATOR (UK)	NTZZ43CA
EMB2-14-IRG-2	RINGING GENERATOR (CHINA)	NTZZ43DA
EMB2-14-IRG-4	RINGING GENERATOR (TURKEY/CEP)	NTZZ43EB
EMB2-14-IRG-5	RINGING GENERATOR (AUSTRALIA)	NTZZ43CF
EMB2-14-IRM-2	INTERNATIONAL REMOTE LINE CONCENTRATING	NTZZ41RB
EMB2-14-RMM-2	REMOTE MAINTENANCE MODULE - STANDARD	NTZZ16HA
EMB2-14-RMM-3	RMM PACKFILL	NTZZ16SA
EMB2-14-RMM-4	REMOTE MAINTENANCE MODULE - STANDARD	NTZZ16FB
EMB2-14-006	REMOTE LINE CONCENTRATING MODULE	NTZZ16NB
EMB2-15-RMC-1	CUSTOM REMOTE MAINTENANCE MODULE (RMM)	NTZZ12CC
EMB2-15-RMM-4	REMOTE MAINTENANCE MODULE (RMM)	NTZZ12BB
EMB2-16-APU-1	APPLICATION PROCESSING UNIT	NTZZ44AA
EMB2-16-ASU-1	CCS7 32MEG LIU (V.35) - ISG	NTZZ30CP
EMB2-16-ASU-2	CCS7 32MEG LIU (FAULT-SEC.)	NTZZ30TC
EMB2-16-ASU-3	CCS7 32MEG E-LIU (CBI)	NTZZ44DC
EMB2-16-ASU-4	ETHERNET I/F UNIT WITH 32MEG ASU PROCESS	NTZZ30ED
EMB2-16-ASU-5	NIU WITH 32MEG ASU PROCESSOR	NTZZ30MB
EMB2-16-ASU-6	XLIU WITH 32MEG ASU PROCESSOR	NTZZ30NB
EMB2-16-ASU-7	HIGH SPEED LINK (HSL) UNIT	NTZZ30RA

EMB2-16-BLK-3	CABINETIZED BULKHEAD AND CABLE ASSEMBLY	NTZZ44JA
EMB2-16-BLK-4	NON CABINETIZED BULKHEAD AND CABLE ASSEM	NTZZ44HA
EMB2-16-CAB-1	CABLE KIT (CABINETIZED)	NTZZ30QB
EMB2-16-CAB-2	C01/C02 TO AISLE ALM1/2 CABLE ASSEMBLY	NTZZ46FA
EMB2-16-CAB-3	BAMD ALARM/POWER CABLE ASSEMBLY	NTZZ46GA
EMB2-16-CLK-1	DMS-BUS SYSTEM CLOCK	NTZZ44MP
EMB2-16-CLK-2	ENHANCED DMS-BUS SYSTEM CLOCK	NTZZ44NP
EMB2-16-CNV-48V	POWER CONVERTER (48V)	NTZZ44NA
EMB2-16-CPU-1	16MHZ, 16MEG DRAM PROCESSOR WITH RTIF	NTZZ44PR
EMB2-16-EIU-3	ETHERNET I/F UNIT FOR BCS34 AND ABOVE	NTZZ30EC
EMB2-16-ELPP	ENHANCED LINK PERIPHERAL PROCESSOR(ELPP)	NTZZ49AA
EMB2-16-FIU-2	ESF FRAME RELAY INTERFACE UNIT	NTZZ30LA
EMB2-16-FLIS-1	FLIS CABINET	NTZZ30PN
EMB2-16-FLIU-2	FIBERIZED LIU SHELF ASSEMBLY	NTZZ30HB
EMB2-16-LI-20	CCS7 8MEG E-LIU (CBI)	NTZZ44DB
EMB2-16-LI-21	CCS7 8MEG E-LIU (JAPAN ISUP WITH CBI)	NTZZ44EB
EMB2-16-LIU-13	CCS7 8MEG LIU (FAULT-SEC.)	NTZZ30TB
EMB2-16-LIU-9	X.25/X.75 LINK INTERFACE UNIT	NTZZ30NA
EMB2-16-LIU7-14	CCS7 8MEG LIU (V.35) - ISG	NTZZ30CN
EMB2-16-LPP	LINK PERIPHERAL PROCESSOR(LPP) CABINET	NTZZ44LP
EMB2-16-NIU	NETWORK INTERFACE UNIT	NTZZ30MA
EMB2-16-VPU-1	VOICE PROCESSING UNIT	NTZZ44BA
EMB2-18-CPC-2	ISDN COMMON PERIPHERAL CONTROL MODULE	NTZZ17GB
EMB2-18-CPC-3	ISDN CPCI COMMON PERIPHERAL CONTROL MODU	NTZZ17DA
EMB2-18-CPC-4	TMS/ETMS LTCI+	NTZZ17GM
EMB2-18-CPC-5	ISDN COMMON PERIPH CNTRL COMMON CP	NTZZ17GJ
EMB2-18-CPC-6	ENHANCED DIGITAL TRUNK CONTROLLER ISDN (	NTZZ17SU
EMB2-18-DCH-1	D-CHANNEL HANDLER	NTZZ17BA
EMB2-18-004	ISDN COCOMMON PERPH CNTRL MODULE	NTZZ17CA
EMB2-19-DCH-2	ENHANCED D-CHANNEL HANDLER	NTZZ17BB
EMB2-19-LCME-2	ISDN 2B1Q LINE CONCENTRATING MODULE	NTZZ17HB
EMB2-19-LCME-3	ISDN 2B1Q LINE CONCENTRATING MODULE	NTZZ17HC
EMB2-19-002	ISDN LINE CONCENTRATING EQUIPMENT	NTZZ17EB
EMB2-20-CP-1	INTERNATIONAL CIPE COMMON CIRCUIT PACK	NTZZ37BA
EMB2-20-CP-3	INTERNATIONAL CDSN COMMON CP	NTZZ37YA
EMB2-20-IOC-3	INTERNATIONAL CIOE IOC PACKAGE	NTZZ37CR
EMB2-20-MTD	INTERNATIONAL CIOE MTD PACKAGE	NTZZ37BM
EMB2-20-ROS-5	STRATUM 2.5 ROS H/W PACKAGE (CIOE)	NTZZ32HN
EMB2-20-006	INTERNATIONAL CIOE	NTZZ37AM
EMB2-24-CMR-1	CLASS MODEM RESOURCE (RSC-S)	NTZZ12UA
EMB2-24-RCC-11	RSC-S COOLING UNIT KIT	NTZZ12ZM
EMB2-24-RCC-12	REMOTE CLUSTER CONTROLLER 2 SHELF	NTZZ12XP
EMB2-24-RCC-15	REMOTE CLUSTER CONTROLLER 2 SHELF	NTZZ12XF
EMB2-24-RCC-2	RCC2 EXTENSION SHELF FILLER KIT	NTZZ12KA
EMB2-24-RCC-3	RCC2 EXTENSION SHELF LEFT FILLER KIT	NTZZ12WA
EMB2-24-RCC-31	PERIPHERAL LOADER BB (RSC-S)	NTZZ02UB
EMB2-24-RCC-9	REMOTE CLUSTER CONTROLLER 2 SHELF PACKFI	NTZZ12XB
EMB2-24-RMM-1	STANDARD REMOTE MAINTENANCE MODULE (FOR	NTZZ12JA
EMB2-24-UTR-1	UNIVERSAL TONE RECEIVER (RSC-S)	NTZZ12VA
EMB2-99-FIU	PC KIT FOR FRAME RELAY SERVICE	NTZZ99AK
EMB2-99-ISDN-2	PRODUCT CHANGE KIT NT6X44AA TO NTAX78AA	NTZZ99AM
EMB2-99-OPM-1	PRODUCT CHANGE KIT	NTZZ99AF
EMB2-99-XPM-1	XPM PC KIT FOR NT6X02AA	NTZZ04EA
EMB2-99-XPM-2	XPM PC KIT FOR NT6X02AC	NTZZ04GA

EMB2-99-XPM-5 XPM TO XPM PLUS PRODUCT CHANGE KIT (WITH NTZZ99AN

INTERNATIONAL XPM NON-ISDN 48VDC COMMON CP

PEC CODE: NTZZ37BC

CPC CODE: B0239181

RATING: DEV

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37BC is the common circuit pack fill used in the dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for Non-ISDN, 48VDC applications in offices with the XPM(MP/SP/FP) feature.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37BC EMA2-06-ZZ37BC CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 10	ECM 644 06	ECD 011-18180.
95 03 30	ECM 644 16	Add NT6X01WK Wiring List.
95 04 03	ECM 644 17	ECD 024-93969.

The International XPM Non-ISDN 48VDC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Time Switch CP	NT6X44EA		2	X+14,X	07	AP
Msg Protocol & Downld CP	NT6X69LB		2	X+14,X	10	AP
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	12	AP
SP Memory Plus CP	NT6X46BB		2	X+14,X	13	AP
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	14	AP
Filler Face Plate	NT0X50AA		2	X+14,X	15	AP
4 MB MP Memory CP	NT6X47AC		2	X+14,X	16	AP
SP Memory Plus CP	NT6X46BB		2	X+14,X	17	AP
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	18	AP
Filler Face Plate	NT0X50AA		2	X+14,X	20	AP
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	22	AP
Filler Face Plate	NT0X50AA		2	X+14,X	24	AP
Power Converter	NT2X70AF		2	X+14,X	25	AP
Designation Strip	P0743128		2	X+14,X		AP
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP
Wiring List without XPM+	NT6X01WK		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE P0698943	MD MD	NT2X70AF P0809960

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A NTZZ37BC Common CP can be assigned in a dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for Non-ISDN, 48VDC applications module as follows:
 - In cabinets:
 - Upper module
 - in shelf positions 47 and 33 (X = 33) and,
 - Lower module
 - in shelf positions 19 and 05 (X = 05), or
 - In Frames:
 - Upper module
 - in shelf positions 65 and 51 (X = 51) and,
 - Lower module
 - in shelf positions 32 and 18 (X = 18).

RULES:

- AP 1) When PEC NTZZ37BC is ordered, these items are provided.

INTERNATIONAL XPM PLUS NON-ISDN 48VDC COMMON CP

PEC CODE: NTZZ37BD

CPC CODE: B0239309

| RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37BD is the common circuit pack fill used in the dual shelf international XPM Plus (Extended Multiprocessor System Peripheral Module) for Non-ISDN, 48VDC applications in offices with the XPM Plus (UP) feature.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37BD EMA2-06-ZZ37BD CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 10	ECM 644 06	Create this building block.
95 03 30	ECM 644 16	Add NT6X01WL Wiring List.
95 04 03	ECM 644 17	ECD 024-93969.
96 02 15	ECM 644 24	Per ECD 024-95797 NTMX71AA is Replaced by NTMX71BA. NTMX71AA is not MD'd.

The International XPM Plus Non-ISDN 48VDC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Time Switch CP	NT6X44EA		2	X+14,X	07	AP
Msg Protocol & Downld CP	NT6X69LB		2	X+14,X	10	AP
XPM Plus Processor CP	NTMX77AA		2	X+14,X	12	AP
Bus Shorter CP	NT7X80AA		2	X+14,X	13	AP
Filler Face Plate	NT0X50AA		2	X+14,X	14	AP
Filler Face Plate	NT0X50AA		2	X+14,X	15	AP
Filler Face Plate	NT0X50AA		2	X+14,X	16	AP
Bus Shorter CP	NT7X80AA		2	X+14,X	17	AP
Filler Face Plate	NT0X50AA		2	X+14,X	18	AP
Filler Face Plate	NT0X50AA		2	X+14,X	20	AP
XPM+ Terminator Paddleboard	NTMX71BA		4	X+14,X	8R, 20R	AP
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	22	AP
Filler Face Plate	NT0X50AA		2	X+14,X	24	AP
Power Converter	NT2X70AF		2	X+14,X	25	AP
Designation Strip	P0743128		2	X+14,X		AP
Desig. Label (NTMX77AA)	P0735417		2	X+14,X	12	AP
Desig. Label (NT7X80AA)	P0742962		2	X+14,X	13	AP
Desig. Label (NT0X50AA)	P0578498		2	X+14,X	14	AP
Desig. Label (NT0X50AA)	P0578498		2	X+14,X	16	AP
Desig. Label (NT7X80AA)	P0742962		2	X+14,X	17	AP
Desig. Label (NT0X50AA)	P0578498		2	X+14,X	18	AP
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP
Wiring List with XPM+	NT6X01WL		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE P0698943	MD MD	NT2X70AF P0809960

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A NTZZ37BD Common CP can be assigned in a dual shelf international XPM Plus (Extended Multiprocessor System Peripheral Module) for Non-ISDN, 48VDC applications module as follows:
 - In cabinets:
 - Upper module
 - in shelf positions 47 and 33 (X = 33) and,
 - Lower module
 - in shelf positions 19 and 05 (X = 05), or
 - In Frames:
 - Upper module
 - in shelf positions 65 and 51 (X = 51) and,
 - Lower module
 - in shelf positions 32 and 18 (X = 18).

RULES:

- AP 1) When PEC NTZZ37BD is ordered, these items are provided.

INTERNATIONAL METALLIC TEST UNIT (MTU)

PEC CODE: NTZZ41AM

CPC CODE: B0236372

RATING: STD

REPLACES: Not applicable

REPLACED BY: Not applicable

ABBREVIATION NAME: IMTU

ENGINEERING DESCRIPTION: Used to measure AC and DC voltages on subscriber loops and line circuits. Resistance, capacitance and frequency measurements are taken also. This mounts on the International Trunk Maintenance Module (NTZZ41XA).

| REFERENCE DOCUMENTATION: SLZZ41AM REL 02

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

| ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ41AM EMB2-01-IMT-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07	ECM 601 04	Introduce International MTU
95 03 17	ECM 601 18	Correction to slot configurations for ET 66143
95 03 21	ECM 601 19	Correction to slot configurations for ET 21889
96 10 04	ECM 601 35	New release level for building block. EC018-48036 MDs NT4X98BB. Remove the NT4X98BB from the stocklist and add NT4X98BC (replacement pec).

The International Metallic Test Unit (MTU) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MTU Controller	NT4X97AA		1	X	YY	AP
MTU Analog	NT4X98BC		1	X	YY-1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT4X98BB	MD	NT4X98BC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 04,18,32,51 or 65.
- 2) YY = Slot Position 06-16.
- 3) These cards are provided in functional pairs and must occupy odd/even slots with specific left/right orientation. Assign NT4X97AA in the right/even slot. Assign NT4X98BC in the left/odd slot.
- 4) Refer to BB-TAB-A Trunk Module Provisioning Cards in EMB14-01-000 for additional reference.

RULES:

- AP 1) When PEC NTZZ41AM is ordered, these items are provided.

INT. TRANSMISSION TEST UNIT(A-LAW)

NTZZ41CM

RATING: Standard.

ABBREVIATION NAME: ITTU

ENGINEERING DESCRIPTION: Used to provide for MF and Digitone receiver diagnostics. This mounts on the International Trunk Maintenance Module (NTZZ41XA).

REFERENCE DOCUMENTATION: SLZZ41CM REL 01 PAS

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

NTZZ41CM EMB2-01-IMT-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07	ECM 601 04	Introduce International Trans Test Un.

| The Int. Transmission Test Unit(A-Law) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Transmission Tst Crtl(A-Law)	NT2X47BA		1	X	YY-1	AP
Transmission Tst Filt(A-Law)	NT2X56BA		1	X	YY	AP

| NOTES:

- | 1) X = Shelf Position 04,18,32,51 or 65.
- | 2) YY = Slot Position 05-16.
- | 3) These cards are provided in functional pairs and must occupy odd/even slots with specific left/right orientation. Assign NT2X47BA in the odd/left slot. Assign NT2X56BA in the even/right slot.
- | 4) Refer to BB-TBL-A Trunk Module Provisioning Cards in EMB14-01-000 for additional reference.

| RULES:

- | AP 1) When PEC NTZZ41CM is ordered, these items are provided.

INT. TRANSMISSION TEST TRUNK(A-LAW)

NTZZ41DM

RATING: Standard.

ABBREVIATION NAME: ITTU

ENGINEERING DESCRIPTION: Used to provide for transmission diagnostics on trunks. This mounts on the International Trunk Maintenance Module (NTZZ41XA).

REFERENCE DOCUMENTATION: SLZZ41DM REL 01 PAS

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

NTZZ41DM EMB2-01-IMT-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07	ECM 601 04	Introduce International Test Trunk

| The Int. Transmission Test Trunk(A-Law) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Test Signal Gen. (A-LAW)	NT1X90BA		1	X	YY-1	AP
PCM Level Meter (A-LAW)	NT2X96BA		1	X	YY	AP

| NOTES:

- | 1) X = Shelf Position 04,18,32,51 or 65.
- | 2) YY = Slot Position 05-16.
- | 3) These cards are provided in functional pairs and must occupy odd/even slots with specific left/right orientation. Assign NT1X90BA in the left slot. Assign NT2X96BA in the right slot.
- | 4) Refer to BB-TBL-A Trunk Module Provisioning Cards in EMB14-01-000 for additional reference.

| RULES:

- | AP 1) When PEC NTZZ41DM is ordered, these items are provided.

4 TOPS/ATT.CON.S MODEM CCTS

NTZZ06HA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ06HA contains circuit packs for the Digital Modem Trunk Packs.

REFERENCE DOCUMENTATION: SLZZ06HA 00 01
NTZZ06HA REL 01

The 4 TOPS/Att.Cons Modem Ccts is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TOPS Controller Processor	NT3X02AA		1	X	Y	AP
TOPS Digital Sig Processor	NT3X03AA		1	X	Y+1	AP

NOTES:

- 1) X = Shelf Position 04,18,32,51 or 65.
- 2) Y = Card Position 05,07,09,11,13,15

RULES:

- AP 1) When PEC NTZZ06HA is ordered, these items are provided.

MULTILINE TEST UNIT

PEC CODE: NTZZ06EA

| CPC CODE: B0231799

RATING: Standard

| REPLACES: N/A

| REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ06EA contains circuit packs for the
Multiline Test Unit.REFERENCE DOCUMENTATION: SLZZ06EA 00 01
NTZZ06EA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

| ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ06EA EMB2-01-MTU-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 09 17	ECM 601 05	Specify slot positioning notes.
92 10 26	ECM 601 06	Add U.S. to the market availability list (ET 21073)
96 07 18	ECM 601 33	Update per SR RR66020 to change slot positions allowed on RMM/MTM.

The Multiline Test Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Multiline Test Unit Analog	NT2X10BA		1	X	Y	AP
Multiline Test Unit Contr	NT2X11BA		1	X	Y+1	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ06EA is ordered, these items are provided.

1) X = Shelf Position 04,18,32,51 or 65.

2) Y = Card Position 05,07,09,13,15 for MTM.

3) Y = Card Position 05,07,11 for RMM.

4) Y = Card Position 15 for DRA.

TRANSMISSION TEST TRUNK

NTZZ06GA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ06GA contains circuit packs for the
Transmission Test Trunk.REFERENCE DOCUMENTATION: SLZZ06GA 00 01
NTZZ06GA REL 01

The Transmission Test Trunk is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Test Signal Generator	NT1X90AA		1	X	Y	AP
PCM Level Meter	NT2X96AA		1	X	Y+1	AP

NOTES:

- 1) X = Shelf Position 04,18,32,51 or 65.
- 2) Y = Card Position 05,07,09,11,13,15

RULES:

- AP 1) When PEC NTZZ06GA is ordered, these items are provided.

TRANSMISSION TEST UNIT

NTZZ06FA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ06FA contains circuit packs for the
Transmission Test Unit.REFERENCE DOCUMENTATION: SLZZ06FA 00 01
NTZZ06FA REL 01

The Transmission Test Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Transm Test Unit Controller	NT2X47AD		1	X	Y	AP
Transmission Test Filter	NT2X56AB		1	X	Y+1	AP

NOTES:

- 1) X = Shelf Position 04,18,32,51 or 65.
- 2) Y = Card Position 05,07,09,11,13,15

RULES:

- AP 1) When PEC NTZZ06FA is ordered, these items are provided.

IOM STORAGE MEDIA CARD KIT

PEC CODE: NTZZ40AJ

CPC CODE: B0246811

| RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The IOM Storage Media Card Kit building block contains the CP, SCSI Cable, a Connector Key Bracket, and Des. Label. The building block mounts on the ISM Shelf NTFX4101 in ISME or CISM when Input Output Module is provisioned.

REFERENCE DOCUMENTATION: SLZZ40AJ 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ40AJ EMB2-02-IOM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 10 22	ECM 705 01	Introduce building block NTZZ40AJ.

The IOM Storage Media Card Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IOM Storage Media Card	NTFX32AA		1	X	04F	AP
SCSI Cable	NTFX40HB		1			AP
Connector Key Bracket	P0832228		1			AP
Des. Label (NTFX32AA)	P0831733		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 07,21,39,53 (for ISM Shelf NTFX4101 in ISME) or 05,19,33,47 (for ISM Shelf NTFX4101 in CISM).

RULES:

- AP 1) When PEC NTZZ40AJ is ordered, these items are provided.

IOM MAIN CONTROLLER CARD KIT

PEC CODE: NTZZ40AK

CPC CODE: B0246830

| RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The IOM Main Controller Card Kit building block contains the IOM Main Controller Card, the IOM Paddleboard Assy., paddleboard insertion guide, and Designation Label. The building block mounts on the ISM Shelf NTFX4101 in ISME or CISM when Input Output Module is provisioned.

REFERENCE DOCUMENTATION: SLZZ40AK 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ40AK EMB2-02-IOM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 10 22	ECM 705 01	Introduce building block NTZZ40AK.

The IOM Main Controller Card Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IOM Main Controller Card	NTFX30AA		1	X	Y	AP
IOM Paddleboard Assy.	NTFX31AA		1	X	YR	AP
Paddleboard Insertion Guide	P0749586		1	X	YR	AP
Design. Label IOC 00-19	P0831731		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 07,21,39,53 (for ISM Shelf NTFX4101 in ISME) or 05,19,33,47 (for ISM Shelf NTFX4101 in CISM).
- 2) Y = CP Position 03F or 04F.
- 3) YR = CP Position 03R when NTFX30AA is mounted in 03F, or 04R when NTFX30AA is mounted in 04F.

RULES:

- AP 1) When PEC NTZZ40AK is ordered, these items are provided.

CABINETIZED INTEGRATED SERVICES MODULE (CISM) EQUIP

PEC CODE: NTZZ47XA

CPC CODE: B0241176

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: CISM

ENGINEERING DESCRIPTION: The Cabinetized ISM Equipment building block contains a Model B Cabinet with an MSP, three ISM Shelf Assemblies, and a Cooling Unit. The top shelf mounting position 47 houses either an ISM Shelf Assembly or an Alarm Cross-connect Unit (AXU). Colors offered are gray or brown.

REFERENCE DOCUMENTATION: SLZZ47XA 00 04

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ47XA EMB2-02-ISM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 21	ECM 557 04	Initial Introduction
94 11 28	ECM 557 05	ET 20479
95 01 24	ECM 557 06	ET 20649
95 02 23	ECM 557 07	EC 018 44518, include provisioning rules for VER90
95 04 07	ECM 557 09	Correct NTRX25AA from AP to AP-01
95 05 05	ECM 557 11	Resolve ET 22539, 22609 and 22499
95 09 20	ECM 557 15	Correct omission in Rul12
95 10 14	ECM 557 17	Remove fuses/des.labels from BB that are ape with CISM MSP Kit per ET# 31129. Clarify some wording of rules. Remove term. rings, insulator boots, and bolt head covers that are ape in NTFX40AA per ET 31219.
95 12 07	ECM 557 19	Clarify RUL12 to answer ET 32949.
96 01 04	ECM 557 20	Fix typo on NTFX40DA shelf 33 to reference rul5 instead of rul4. Done to answer SR RR60035.
96 04 23	ECM 557 23	Clarify RUL10 per RR62667 to show shelf position of misc. hardware.
96 05 01	ECM 557 24	Clean-up EMS (remove qty. from rules)
96 06 20	ECM 557 25	Remove AP NTFX40DN from building block stocklist and make it and NTFX40DM provisionable. See RUL13.
96 07 18	ECM 557 26	Remove rule from NTFX40DA/DB at position 5/19 as these are AP with SLFX40AA per SR RR64488.
96 09 20	ECM 557 27	Add more details to RUL8 and 11 per SR RR66028.
96 10 25	ECM 557 28	Change the wording of RUL12 per SR RR67817.
97 01 17	ECM 557 30	Clarify RUL11 for NTFX40AB Power Filter Kit.
97 06 23	ECM 557 34	Remove AP cables NTFX40DB per iss. 3 of SLFX40AA from positions 05,19. Add AP cables NTFX40HC at positions 05,19 per SLFX40AA.
		Per EC018-45955 add info regarding IOM.
		Un-md NTFX40DB due to delay in manufacturing cut-in date.
		Update EMS per EC018-46961. Add Des.

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 08 04	ECM 557 35	Label for Germany, update rules for IOM and Bulkhead usage. Update RUL1A and RUL2A. NTFX40HC now provisionable at shelf pos. 19 and 05 (removed from NTFX40AA stocklist). Update per EC 018-51054. Provide keybrackets on ISM Shelf at slots 3/4. Add label P0871015 when IOM is provisioned on the ISM Shelf. Introduce Functional Block NTZZ40AG.

The CABINETIZED INTEGRATED SERVICES MODULE (CISM) EQUIP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Integrated Services Module	NTFX40AA	CISM	1			AP
Cabinet Assembly	NTRX25AA		1			AP-01
CISM Horiz. Cabling Kit	NTFX40DM					RUL13
CISM Ext. Power Filter Kit	NTFX40DN					RUL13
Designation Label 13 Pos.- (Germany)	P0847107					RUL13
Modular Supervisory Panel	NTFX4011	MSP	1	61		AP
C28 English Label Kit	NTRX3541		1	61		AP
Fan Pwr Control Mod.(-48V)	NTRX54BA		1	61	19	AP
Des. Label (NTRX54BA)	P0741680		1	61	19	AP
Fuse Dummy	A0205210			61		RUL1
Fuse 3 Amp Blue	A0205204			61		RUL1
Fuse 5 Amp Green	A0205205			61		RUL1
Fuse Block Designation 3A	P097P237			61		RUL1
Fuse Block Designation 5A	P097P238			61		RUL1
Alarm X-connect Unit	NT3X89CA	AXU		47R		RUL2
Filler Panel	P0575239			47		RUL2
Personality Plate(AXU)	P0715586			47		RUL2
EAS Label	P0749661			61		RUL2
ISM DS-30 Cable Assy	NTFX40DC			33		RUL3
OAU/AXU Cable Assy	NTFX40DD			47R		RUL3
ISM MDF Cable Assy	NTFX40DG			47R		RUL3
AXU/MDF T/R Cable Assy	NTFX40DJ			47R		RUL3
AXU/ISM(2) Cable Assy	NTFX40DS			47R		RUL3
AXU/Bulkhd Cable Assy	NTFX40DV			47R		RUL3
AXU T01 Cable Assy	NTRX32ED			47R		RUL3
AXU T02 Cable Assy	NTRX32EJ			47R		RUL3
AXU T03 Cable Assy	NTRX32EE			47R		RUL3
AXU T04 Cable Assy	NTRX32EF			47R		RUL3
AXU T05 Cable Assy	NTRX32EG			47R		RUL3
AXU T06 Cable Assy	NTRX32EH			47R		RUL3
Ground Cable Assy	NT0X95BY			47R		RUL3
ISM Shelf Assembly	NTFX4101	NOTE 7		47		RUL4
Personality Plate	P0745181			47		RUL4
IOM BH Plate Assy	NTFX39AA			47		RUL15
NTFX39AA Diagram Label	P0871015			47		RUL15
Connector Key Bracket	P0832926			47		RUL16
DS-30 Cable Assy	NTFX40DA			47	03-17, 21	RUL5

NTZZ47XA

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MDF Cable Assembly	NTFX40DB			47		RUL5
MDF Cable Assembly	NTFX40HC			47		RUL5
Misc.Eq. for CISM/ISM Sh. with IOM	NTZZ40AG			47		RUL15
ISM/ILTA Cable Assy	NTFX40DW	NOTE 6		47		RUL1A
ISM/VER-90 Cable Assy	NTFX40DX	NOTE 6		47		RUL2A
ISM Shelf Assembly	NTFX4101	NOTE 1 NOTE 7	1	33		AP-01
Personality Plate(AXU/OAU)	P0748848			33		RUL2
Personality Plate	P0745181			33		RUL12
DS-30 Cable Assy	NTFX40DA			33	03-17, 21	RUL5
IOM BH Plate Assy	NTFX39AA			33		RUL15
NTFX39AA Diagram Label	P0871015			33		RUL15
Connector Key Bracket	P0832926			33		RUL16
MDF Cable Assembly	NTFX40DB			33		RUL5
MDF Cable Assembly	NTFX40HC			33		RUL5
ISM/OAU to MDF Cable Assy	NTFX40DT			33		RUL6
Misc.Eq. for CISM/ISM Sh. with IOM	NTZZ40AG			33		RUL15
ISM/ILTA Cable Assy	NTFX40DW	NOTE 6		33		RUL1A
ISM/VER-90 Cable Assy	NTFX40DX	NOTE 6		33		RUL2A
ISM Shelf Assembly	NTFX4101	NOTE 1 NOTE 7	1	19		AP-01
Personality Plate(ISM)	P0745181		1	19		AP-01
IOM BH Plate Assy	NTFX39AA			19		RUL15
NTFX39AA Diagram Label	P0871015			19		RUL15
Connector Key Bracket	P0832926			19		RUL16
MDF Cable Assembly	NTFX40DB			19		RUL5
IOM Port/ISM MDF Cable Assy	NTFX40HC			19		RUL5
Misc.Eq. for CISM/ISM Sh. with IOM	NTZZ40AG			19		RUL15
ISM/ILTA Cable Assy	NTFX40DW	NOTE 6		19		RUL1A
ISM/VER-90 Cable Assy	NTFX40DX	NOTE 6		19		RUL2A
ISM Shelf Assembly	NTFX4101	NOTE 1 NOTE 7	1	05		AP-01
Personality Plate(ISM)	P0745181		1	05		AP-01
IOM BH Plate Assy	NTFX39AA			05		RUL15
NTFX39AA Diagram Label	P0871015			05		RUL15
Connector Key Bracket	P0832926			05		RUL16
MDF Cable Assembly	NTFX40DB			05		RUL5
IOM Port/ISM MDF Cable Assy	NTFX40HC			05		RUL5

NTZZ47XA

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Misc.Eq. for CISM/ISM Sh. with IOM	NTZZ40AG			05		RUL15
37 Pin Filter Adaptor (1000-1600 PF)	A0316599			47, 33, 19		RUL12
37 Pin Filter Adaptor (300-450 PF)	A0316598			33		RUL12
9 Pin Filter Adapter	A0344127			33		RUL12
Washer	P0148330			47, 33		RUL12
Bushing	P0638259			47, 33, 19		RUL12
Screwlock	A0317136			47, 33		RUL12
ISM Test Access Cable Assy	NTFX4015			05		RUL7
ISM Test Access Cable Assy	NTFX40DE			X		RUL7
Shorting Plug	NTFX40DF			X		RUL8
Terminal Ring	A0292996			47		RUL9
Insulation Boot	P0743593			47		RUL9
Bolt Head Cover	P0732389			47		RUL9
Support Bar	P0558644			59R		RUL10
Screw	P097F813			59R		RUL10
9-Pin Cover Plate	P0715809					RUL11
Screw	P0670923					RUL11
10" Cooling Unit	NTRX92AA		1	00		AP
ISM Retrofit Kit for IOM (Cabinet)	NTFX40UA					RUL14
C28 Cabinet Mechanicals	NTRX25AA	NOTE 5				
Cabinet Power and Grounding	NTZX16CA	NOTE 5				
CLCE Door and eqp labels	MS0X60AA	NOTE 5				

NTZZ47XA

Active Equipment

EMB2-02-ISM-1

CABINETIZED INTEGRATED SERVICES MODULE (CISM) EQUIP Page 6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Reserved
- 2) When an Alarm Cross-connect Unit (AXU) is mounted in the cabinet, the always provided ISM Shelf Assemblies in shelf positions 33 and 19 are used as Primary Alarm ISM Unit, and Secondary Alarm ISM Unit respectively. The Trunk Module Provisionable Card rules given in the Engineering Manual Table A, Section EMB14-01-000, should be applied accordingly. Otherwise, if these shelves are not used as Primary or Secondary Alarm ISM Units, Trunk Provisionable Card rules for regular ISM should be applied.
- 3) X = Shelf Position 05,19,33,47.
- 4) Deleted
- 5) The NTZZ47XA CISM Equipment has system level provisionable items covering the following:
 - * Seismic Zone provisioning
 - * Grounding options provisioning
 - * Cable routing options provisioning
 - * Cabinet Fail Lamp provisioning

For details of the above refer to Engineering Manual Section NTRX25AA, C28 Cabinet Mechanical Assembly.

For power and grounding information refer to Engineering Manual Section for NTZX16CA Cabinetized Power and Grounding.

Refer to MS0X60AA for equipment labeling.

- 6) Rules identified with suffix 'A' are specific to the Cabinetized Metallic Test Access (CMTA) application of CISM. The CMTA application requires the use of the CMTA, NTFX40EA. Refer to MSFX40EA or Engineering Manual Section NTFX40EA for provisioning information.
- 7) The general abbreviation for the shelf assembly is ISM. However, ISM Shelves are labeled with the abbreviation TM8, TM4, TM2 or MTM depending on the shelf function. The ISM functions as either an MTM or TM according to the software load applied.

RULES:

- AP 1) When PEC NTZZ47XA is ordered, these items are provided.
- AP-01 1) This item is always provided with the CISM Equipment, NTFX40AA, and is shown here for completeness.
- RUL1 1) Provide one (1) Fuse 3 Amp blue, A0205204, and two (2) Fuse 5 Amp green, A0205205 if ISM Shelf Assembly, NTFX4101 is provided in shelf position 47. Locate fuses in the MSP, NTRX40AA, at designations shown in the following table.
- 2) Provide one (1) Fuse Block Designation Blue, P097P237, and two (2) Fuse Block Designation Green P097P238 if ISM Shelf Assembly, NTFX4101 is provided in shelf position 47. Locate Fuse Block Designation in the MSP, NTRX40AA, at positions shown in paragraph 3.
- 3) Provide three (3) Fuse Dummy, A0205210, if shelf position 47 is not occupied by an ISM Shelf Assembly, NTFX4101. Locate Fuse Dummy in the MSP, NTRX40AA, according to the following table. For example, if shelf position 47 is not occupied by an ISM Shelf Assembly, Fuse Dummies are located at the MSP in positions designated 9F01, 9F05, and 8F05, This is obtained by reference to the third column in the

table, ISM 3 POS 47 and substituting Fuse Dummy for 3 Amp and 5 Amp fuses.

PART	DESCRIPTION	ISM 3 POS 47	ISM 2 POS 33	ISM 1 POS 19	IS POS
A0205204	3A FUSE (FLT)	9F01	8F02	9F03	8F
P097P237	DESIG DISK	9F01	8F02	9F03	8F
A0205205	5A FUSE (SP1)	9F05	8F06	9F07	8F
P097P238	DESIG DISK	9F05	8F06	9F07	8F
A0205205	5A FUSE (SP2)	8F05	9F06	8F07	9F
P097P238	DESIG DISK	8F05	9F06	8F07	9F

- RUL2
- 1) Each office requires one (1) Alarm Cross-connect Unit (AXU). For extensions, the AXU will already exist.
 - 2) For new offices, provide (1) AXU, NT3X89CA, and one (1) P0575239 Filler Panel per office. In new offices, the AXU and the Filler Panel are mounted on the ISM Shelf position 47 in the first CISM of the office. The AXU is mounted on the back of the shelf and the Filler Panel on the front of the shelf.
 - 3) If an AXU, NT3X89CA, is provided (in first CISM), provide one (1) Personality Plate P0715586 at Bulkhead position 47 and one (1) Personality Plate P0748848 at Bulkhead position 33.
 - 4) Provide Quad Link Daughter Board CP as below:
 - a) Provide (1) NT3X8906 when provisioning for -48V markets.
 - b) Provide (1) NT3X8907 when provisioning for -60V markets.
 - c) Provide (2) Screws, P0180922, (2) Helical Washers, P0182948, and (2) Flat Washers, P0284139 for mounting NT3X8906 or NT3X8907.
 - 5) When an AXU, NT3X89CA, is provided on a CISM, an ISM Shelf Assembly, NTFX4101, is used as a Primary Alarm ISM Unit at

shelf position 33 another ISM Shelf Assembly is used as a Secondary Alarm ISM Unit at shelf position 19. The AXU, the Primary Alarm Unit, and the Secondary Alarm Units form a functional trio on the same cabinet. Both the Primary and the Secondary Alarm Unit must be powered directly from the Power Board.

- 6) Provide (2) two EAS Label, P0749661, if an AXU, NT3X89CA, is provided in shelf position 47. One label is placed on the front and the other on the rear of the MSP.
- 7) When AXU Shelf is provisioned in position 47, IOM CPs can only be provided in ISM NTFX4101 Shelf at position 05.

- RUL3
- 1) Provide one (1) ISM DS-30 Cable Assy, NTFX40DC, if AXU is provided in the CISM. Cable runs from shelf 33 slot positions 3 - 9 and 21 to SL00 and SL10 at bulkhead position 33. Any DS-30 connections to slot 3-9 which are not required should be tied back and not connected. DS-30 connections not required when the corresponding slot is assigned to a non-PM type service circuit.
 - 2) Provide one (1) OAU/AXU Cable Assy, NTFX40DD, if AXU is provided in the cabinet. Cable runs from Shelf 47, A00 to A08, to shelf 33 slot positions 12-19.
 - 3) Provide one (1) ISM MDF Cable Assy, NTFX40DG, if AXU is provided in the cabinet. Cable runs from Shelf 47, C03-C22 to C03-C22 at bulkhead position 47.
 - 4) Provide one (1) AXU/MDF T/R Cable Assy, NTFX40DJ, if AXU is provided in the cabinet. Cable runs from Shelf 47, F01A and F01B to F01A and F01B at bulkhead position 33.
 - 5) Provide one (1) AXU/ISM(2) Cable Assy, NTFX40DS, if AXU is provided in the cabinet. Cable runs from G00, shelf 47 to shelf position 19, slot 19.
 - 6) Provide one (1) AXU T01 Cable Assy, NTRX32ED, if AXU is provided in the cabinet. Cable runs from Shelf 33, Terminal Block TB1 to T01, at bulkhead position 33.
 - 7) Provide one (1) AXU T02 Cable Assy, NTRX32EJ, if AXU is provided in the cabinet. Cable runs from Terminal Block TB1 to T02, at bulkhead position 33.
 - 8) Provide one (1) AXU T03 Cable Assy, NTRX32EE, if AXU is provided in the cabinet. Cable runs from Shelf 33, Terminal Block TB1 to T03, at bulkhead position 33.

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- 9) Provide one (1) AXU T04 Cable Assy, NTRX32EF, if AXU is provided in the cabinet. Cable runs from Shelf 33, Terminal Block TB1 to T04, at bulkhead position 33.
 - 10) Provide one (1) AXU T05 Cable Assy, NTRX32EG, if AXU is provided in the cabinet. Cable runs from shelf 33, Terminal Block TB1 to T05, at bulkhead position 33.
 - 11) Provide one (1) AXU T06 Cable Assy, NTRX32EH, if AXU is provided in the cabinet. Cable runs from shelf 33, Terminal Block TB1 to T06, at bulkhead position 33.
 - 12) Provide one (1) Ground Cable, NT0X95BY, if AXU is provided in the cabinet. Cable runs from shelf position 47 Terminal Block TB1 to Ground Stud, PCL+, on shelf backplane in position 33.
 - 13) Provide one (1) AXU/Bulkhd Cable Assy, NTFX40DV, if AXU is provided in the cabinet. Cable runs from shelf position 47, C00, C01, F00A, F00B, C43, and C44 to bulkhead position 33, C00, C01, F00A, F00B, C43, and C44, respectively.
- RUL4
- 1) If shelf position 47 is not occupied by an AXU, NT3X89CA, provide one (1) NTFX4101 Shelf Assembly in shelf position 47 in addition to the ISM Shelf Assemblies, NTFX4101, always provided in shelf positions 05, 19 and 33.
 - 2) When an ISM Shelf Assembly is provided at shelf position 47, according to RUL4 1), provide two (2) Personality Plates, P0745181, and two (2) NTFX39AA IOM Bulkheads at bulkhead positions 33 and 47.
- RUL5
- 1) Provide one (1) DS-30 Cable Assembly, NTFX40DA, and one (1) MDF Cable Assembly, NTFX40DB or NTFX40HC, for shelf position 47 and 33, if the AXU is not mounted in the cabinet. Use MDF Cable Assembly, NTFX40HC, if IOM is provisioned in the shelf.
 - 2) Provide one (1) MDF Cable Assembly, NTFX40DB or NTFX40HC, for each shelf position 19 and 05. Use MDF Cable Assembly, NTFX40HC, if IOM is provisioned in the shelf.
 - 3) The DS-30 cables, if provided, run from ISM Shelves in position 47,33,19 and 05, slots 3-17 and 21, to SL00, SL01, SL10 and SL11 at bulkhead position 47,33,19 and/or 05 respectively. The NTFX40DA Cable Assembly provides a maximum of fifteen DS-30 connections to the network plane 0 and 1. Note that slots 18,19 and 20 do not have DS- 30 connections

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to the network. These slots, therefore, cannot be used for PM Service Circuits.

- 4) Any DS-30 connections, to slots 3 thru 4, which are not required, should be tied back, and not connected. DS-30 connections are not required when the corresponding slot is assigned to a non-PM type service circuit.

Any DS-30 connections to the NTFX31AA Paddleboard in slots 03R or 04R should be tied back (future use).

- 5) The MDF Cable Assy, NTFX40DB, if provided, runs from ISM Shelf in position 47,33,19 and 05, slots 5-20, to C05-C20 at bulkhead position 47,33,19, and 05 respectively.
- 6) The MDF Cable Assy, NTFX40HC, if provided, runs from ISM Shelf in position 47,33,19 and 05, slots 3,4, to C05-C08 at bulkhead for IOM and slots 9-20, to C09-C20 at bulkhead for MDF for shelf position 47,33,19, and 05 respectively.
- 7) Provide two (2) Bushing, P0638259, for each ISM/ILTA Cable Assy, NTFX40DW provided.

RUL6 1) Provide one (1) ISM/OAU to MDF Cable Assy, NTFX40DT, if AXU is provided in the cabinet. The cable runs from shelf 33, slots 5 thru 11 to C05 thru C11 at bulkhead position 33.

RUL7 1) When ISM Shelves are configured as TM8 in a DMS 300 Office, and AXU Shelf is not provided in the same cabinet, provide three (3) Test Access Cable Assy, NTFX40DE per ISM cabinet. Also provide one (1) NTFX4015, ISM Test Access Cable Assy providing connection from shelf position 05 to connector TA at the top of the cabinet.

RUL8 1) When an ISM Shelf is configured for TM8 in NON-DMS 300 offices, provide one (1) Shorting Plug NTFX40DF per shelf provided located at TA.A on the backpanel between slots 20 and 21. Provide cover plate per RUL11. If test access is not required see RUL11.

RUL9 1) Provide one (1) Terminal Ring, A0292996, if ISM Shelf is provided in position 47.

2) Provide ten (10) Insulation Boot, P0743593, if ISM Shelf is provided in position 47.

3) Provide ten (10) Bolt Head Cover, P0732389, if ISM Shelf is provided in position 47.

- RUL10 1) Provide one (1) Support Bar P0558644 and two (2) Screws P097F813 at shelf position 59R when ISM Shelf is provided in position 47.
- RUL11 1) Provide one (1) 9-Pin Cover Plate P0715809, and two (2) Screws, P0670923, at TA connector position on the NTFX40AB Power Filter Kit, if test access is NOT required. Also see RUL8 and RUL13. NOTE-The NTFX40AB is in the stocklist of the NTFX40DN.
- RUL12 1) For each Personality Plate P0748848 provided, provide six (6) A0344127 9-Pin Filter Adaptors to connector positions T01-T06. Provide eight (8) A0316598 37-Pin Filter Adaptors to connector positions C43-C44, F01A, F01B, F00A, F00B, SL00 and SL10. Provide seven (7) 37 Pin Filter Adaptors, A0316599 to connector positions C05-C11.
- 2) Except where ISM/ILTA Cable Assy(s), NTFX40DW, or ISM/VER 90 Cable Assy, NTFX40DX, are provided on the corresponding shelf (refer to RUL1A and 2A), for each Personality Plate P0745181 in position 47 and 33, provide twelve (12) A0316599 37-Pin Filter Adaptors to connector positions C09-C20. For the Personality Plate P0745181 in position 19 BKHD position C16 and C11, provide two (2) A0316599 filter adaptor, four (4) A0317136, and four (4) P0148330.
- 3) For ISM Shelf positions 47 or 33 where ISM/ILTA Cable Assy(s), NTFX40DW, and/or ISM/VER 90 Cable Assy(s) NTFX40DX are provided, the number of A0316599 37-Pin Filter Adaptors provided is 12 minus the sum of the number of ISM/ILTA Cable Assy, NTFX40DW and ISM/VER 90 Cable Assy, NTFX40DX. Refer to RUL1A and 2A respectively for NTFX40DW and NTFX40DX provisioning information. Assign Filter Adaptors, A0316599, to connector positions as follows:

QTY OF NTFX40DW + NTFX40DX	FILTER ADAPTOR ASSIGNMENTS	SHLF POS
1	C05-C15, C17-C20	47
2	C05-C10, C12-C15 C17-C20	47
3	C05-C15, C17-C20	33
4	C05-C10, C12-C15 C17-C20	33

5	C05-C15,C17-C20	19
6	C05-C15,C12-C15 C17-C20	19

- 4) For each Personality Plate P0745181 in positions 47 or 33 provide (4) 37 Pin Filter Adaptors, A0316598, to connector positions SL00, SL10, SL01, SL11.
- 5) For positions 47 or 33, provide four (4) sets of Mounting Hardware, P0148330, and four (4) sets of Screwlocks, A0317136 for each Filter Adaptor, A0316598, A0316599, and A0344127, provided.
- 6) Provide two (2) Bushing, P0638259 for each NTFX40DW ISM/ILTA Cable Assy and each NTFX40DX, ISM/VER 90 Cable Assy provided.
- 7) If IOM is provided in any shelf positions 47,33,19, or 05, do not provide four (4) A0316599 Filter Adaptors in position C05, C06, C07 and C08.

RUL13 1) When CISM requires horizontal power arrangement, provide one (1) NTFX40DM Horizontal Cabling Kit.

- 2) When CISM requires the external power arrangement, provide one (1) NTFX40DN External Power Filter Kit.If CISM is destined for a German market and a German label is required, provide one (1) P0847107 label.

RUL14 1) Provide one (1) ISM Retrofit Kit for IOM Cabinet, NTFX40UA, for each ISM Shelf in the field to be used for IOM CPs. The NTFX40UA is not to be provided for ISM Shelf in position 33 if an AXU is provided in position 47. The NTFX40UA is not to be provided for ISM Shelves equipped with ILTA CPs NTFX44AA in ISM Shelf position 06.

RUL15 1) Each ISM Shelf with IOM in CISM's will have an NTFX39AA Bulkhead Plate Assy mounted to positions C05, C06, C07 and C08. NTFX39AA Diagram Label is also provided to be applied to the cabinet door. Service Circuit Packs in slot 05 thru 08 requiring I/O connections to C05 thru C08 cannot be provisioned. The following classes of CPs can be provisioned in slots 05 thru 08: TTUs and TTTs, 2X48--DF/MF Receivers, EDTU NT4X45, EDRAM NT1X80AA, Conference trunks, DModems, CTM NT1X81AA.

- 2) Provide one (1) NTZZ40AG for each ISM Shelf position equipped with IOM. The NTZZ40AG provides one (1) NTFX40HC,

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one (1) NTFX39AA, and one (1) P0871015. See RUL5 for usage of the NTFX40HC. This functional block takes the place of detail ordering of the above misc. equipment for each shelf.

- RUL16 1) Provide two (2) Connector Key Bracket P0832926 for each ISM Shelf slots 3 and 4. Do not provide if IOM is provisioned in the shelf.

CABINETIZED METALLIC TEST ACCESS (CMTA) APPLICATION

- RUL1A 1) The ISM/ILTA Cable Assemblies, NTFX40DW, are required for provisioning of MLT (Multi Line Test) or LTD (Local Test Desk) interface used in the CMTA application. Each NTFX40DW Cable Assy interconnects the F (bottom connector) of four slots assigned to Incoming/Outgoing Test Trunk CPs to the F Connector of an adjacent single slot assigned to the Improved Loop Test Access CP. To accommodate NTFX40DW, ISM/ILTA Cable Assy(s), the F Connectors of the ISM/MDF Cable Assy at the slots connected to the ISM/ILTA Cable Assy(s) are disconnected and tied back. Refer to RUL4, 3.
- 2) Provide one (1) ISM/ILTA Cable Assy, NTFX40DW for each group of four (4) external loop test circuits required for interfacing either MLT or LTD. A maximum of two (2) ISM/ILTA Cable Assy, NTFX40DW, may be provided at shelf position 47, a maximum of two (2) NTFX40DW at shelf position 33, and a maximum of two (2) NTFX40DW at shelf position 19. Slot allocations for Cable Assy NTFX40DW are as follows:

SHELF POS	TEST ACCESS GROUP	CABLE ASSY	SLOT	
			ILTA	IC/OG TRK
47	1	1	16	17-20
	2	2	11	12-15
33	3	3	16	17-20
	4	4	11	12-15
19	5	5	16	17-20
	6	6	11	12-15

- 3) The use of ISM/ILTA Cable Assemblies., NTFX40DW, imposes a special CMTA configuration of CPs within the affected ISM Shelves. Refer to design document MSFX4101 or Engineering Manual Section NTFX4101 for ISM Shelf provisioning information.
- 4) Deleted
- 5) Do not provision test access ISM/ILTA Cable Assys NTFX40DW in CISM which includes an AXU, NT3X89CA. That is, do not provide ILTA test access in the CISM which includes an AXU.
- 6) A maximum of 24 External Loop Test Trunks (horizontal) can be supported in a single CISM.
- 7) When dedicated and/or rover LTU/MTUs are to be allocated Test Access Group 6 cannot be used.

- RUL2A
- 1) The ISM/VER 90 Cable Assy, NTFX40DX, is required for provisioning of Verification Board (VER 90) interface used in the CMTA application. Each NTFX40DX Cable Assy interconnects the E (top connector) of four slots assigned to Incoming/Outgoing Test Trunk CPs to the F Connector of an adjacent single slot assigned to the Improved Loop Test Access CP. To accommodate NTFX40DX, Cable Assy(s), the E Connectors of the ISM/MDF Cable assy at the slots connected to the ISM/VER 90 Cable Assy(s) are disconnected and tied back. Refer to RUL4, 3a.
 - 2) Provide one (1) ISM/VER 90 Cable Assy, NTFX40DX, for each group of four (4) VER 90 trunks. A maximum of two (2) ISM/VER 90 Cable Assy, NTFX40DX, may be provided at shelf position 47, a maximum of two (2) ISM/VER 90 Cable Assy,

NTFX40DX, may be provided at shelf position 33, and a maximum of two (2) NTFX40DX at shelf position 19. Slot allocations for ISM/VER 90 Cable Assy, NTFX40DX, are as follows:

SHELF POS	TEST ACCESS GROUP	CABLE ASSY	SLOT	
			ILTA	IC/OG TRK
47	1	1	16	17-20
	2	2	11	12-15
33	3	3	16	17-20
	4	4	11	12-15
19	5	5	16	17-20
	6	6	11	12-15

- 3) The use of ISM/VER 90 Cable Assy, NTFX40DX, imposes a special CMTA configuration of CPs within the affected ISM Shelves. Refer to design document MSFX4101 or Engineering Manual Section NTFX4101 for ISM Shelf provisioning information.
- 4) Deleted
- 5) Do not provision test access ISM/VER 90 Cable Assy, NTFX40DX, in CISM which includes an AXU, NT3X89CA. That is, do not provide ILTA test access in the CISM which includes an AXU.
- 6) A maximum of 24 External Loop Test Trunks (horizontal) can be supported in a single CISM.
- 7) When dedicated and/or rover LTU/MTUs are to be allocated Test Access Group 6 cannot be used.

ISME WITH MSP

PEC CODE: NTZZ40AB

CPC CODE: B0244490

RATING: STD

REPLACES: NTZZ40AA

REPLACED BY: Not Applicable

ABBREVIATION NAME: ISME

ENGINEERING DESCRIPTION: The Integrated Services Module (ISME) With MSP Building Block contains the ISME frame and the MSP shelf. This building block becomes the base to mount other building blocks, such as the ISM Shelf (TM or MTM) building block, and ISM Alarm Group Shelves building block. See rules for provisionable items.

REFERENCE DOCUMENTATION: SLZZ40AB 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

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NTZZ40AB EMB2-02-ISM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 10 05	ECM 557 16	Introduce building block NTZZ40AB.
95 12 07	ECM 557 19	Correct provisionable building blocks.
96 03 25	ECM 557 22	Flag NTZZ40AC and AE as MD, add new NTZZ40AF BB.
96 09 20	ECM 557 27	Clarify RUL3 to answer SR RR62214. Clean-up of some rule wording per POPS team. Clean-up of title and description.
96 10 25	ECM 557 28	Per EC018-45955 add information concerning IOM field upgrades.
97 03 28	ECM 557 32	General clean-up of EMS.
97 06 23	ECM 557 34	Update per EC 018-46961. Update RUL1A and RUL2A subsection 2,5, and add subsection 6.

The ISME With MSP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Integrated Services Module	NTFX40BA	ISME	1			AP
Universal Framework Assembly	NT0X25AH		1			AP
Modular Supervisory Pnl Kit	NTFX4010	MSP	1	71		AP
Fuse Dummy	A0205210			71		RUL1
ISME MSP Fuse Label	P0831475			71		RUL1
Filler Panel	P0575239			X		RUL2
Support Bar	P0558644			65R		RUL3
Screw	P097F813			65R		RUL3
# ISM Shelf (TM)	NTZZ40AC			X		RUL4
ISM Shelf	NTZZ40AD			X		RUL4
# ISM Alarm Group Shelves	NTZZ40AE			XX		RUL4
ISM Alarm Group Shelves	NTZZ40AF			XX		RUL4
ISM/ILTA Cable Assy	NTFX40DW	NOTE 3		53,39		RUL1A
ISM/VER-90 Cable Assy	NTFX40DX	NOTE 3		53,39		RUL2A
ISM Retrofit Kit for IOM (Frame)	NTFX40UB			X		RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ40AC	MD	NTZZ40AD
NTZZ40AE	MD	NTZZ40AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 07,21,39,53.
- 2) XX = Shelf Position 21
- 3) Rules identified with suffix 'A' are specific to the Metallic Test Access (MTAE) application of ISME. The MTAE application requires the use of the MTAE, NTFX40FA. Refer to MSFX40FA or Engineering Manual Section NTFX40FA for provisioning information. For offices having requirements to interface MLT (Multiline Test Trunks), LTD (Local Test Desk) or VER 90 trunks with the MTAE system, the ISME NTFX40BA should be installed adjacent to the directly interfacing MTAE.

RULES:

- AP 1) When PEC NTZZ40AB is ordered, these items are provided.
- RUL1 1) Provide three (3) Fuse Dummy, A0205210, for each shelf pos. NOT occupied by an ISM Shelf Assembly, NTFX4101. Locate Fuse Dummy in the MSP, NTRX40AA, according to the following table. For example, if shelf pos. 21 is not occupied by an ISM Shelf Assembly, Fuse Dummies are located at the MSP in positions designated 9F03, 9F07, and 8F07. This is obtained by reference to the fifth column in the table, ISM 1 POS 21 and substituting Fuse Dummy for 3 Amp and 5 Amp fuses.

PART	DESCRIPTION	ISM 3 POS 53	ISM 2 POS 39	ISM 1 POS 21	ISM 0 POS 07
A0205204	3A FUSE (FLT)	9F01	8F02	9F03	8F04
P097P237	DESIG DISK	9F01	8F02	9F03	8F04
A0205205	5A FUSE (SP1)	9F05	8F06	9F07	8F08
P097P238	DESIG DISK	9F05	8F06	9F07	8F08
A0205205	5A FUSE (SP2)	8F05	9F06	8F07	9F08
P097P238	DESIG DISK	8F05	9F06	8F07	9F08

- 2) Provide one (1) ISM MSP Fuse Label P0831475 when providing NTFX4101 ISM Shelves to the field. One (1) P0831475 Label can accommodate up to 4 ISM Shelves.
- RUL2 1) Provide one (1) Filler Panel P0575239 in any shelf pos. not occupied by an ISM Shelf NTFX4101.
- RUL3 1) Provide one (1) Support Bar P0558644 and two (2) Screws P097F813 at shelf pos. 65R if the ISM Shelf Assembly NTFX4101 is provided in shelf pos. 53.
- RUL4 1) Provide up to four NTZZ40AD ISM Shelves (MTM or TM), or one (1) NTZZ40AF ISM Alarm Group Shelves per frame. These building blocks have fuses and designation labels always provided for the MSP. Mount the fuses per the table in RUL1, or refer to the Engineering Manual Sections for these building blocks for more details on contents and applications.
- 2) For new offices provide one NTZZ40AF and mount in the first ISME of the office. One additional MTM or TM shelf can mount on an ISME when the NTZZ40AF Alarm Group is mounted on that frame.
- RUL5 1) Provide one (1) ISM Retrofit Kit for each NTFX4101 ISM Shelf when field upgrades are required for mounting IOM CPs in ISME.

METALLIC TEST ACCESS EQUIPMENT (MTAE) APPLICATION

- RUL1A 1) The ISM/ILTA Cable Assemblies, NTFX40DW, are required for provisioning of MLT (Multi Line Test) or LTD (Local Test Desk) interface used in the MTAE application. Each NTFX40DW Cable Assy interconnects the F (lower connector) of four slots assigned to Incoming/Outgoing Test Trunk CPs to the F Connector (lower) of an adjacent single slot assigned to the Improved Loop Test Access CP. To accommodate NTFX40DW, ISM/ILTA Cable Assy(s), the F Connectors of the ISM/MDF switchboard cable, at the slots connected to the ISM/ILTA Cable Assy(s), are disconnected and tied back.
- 2) Provide one (1) ISM/ILTA Cable Assy, NTFX40DW for each group of four (4) external loop test circuits required for interfacing either MLT or LTD. (One type of cable is all that is required for each grouping. See RUL2A for usage of the other cable NTFX40DX.) A maximum of three (3) ISM/ILTA Cable Assy, NTFX40DW, may be provided at shelf position 53. A maximum of three (3) ISM/ILTA Cable Assy, NTFX40DW, may

be provided at shelf position 39. Slot allocations for Cable Assy NTFX40DW are as follows:

SHELF POS	TEST ACCESS GROUP	CABLE ASSY	SLOT	
			ILTA	IC/OG TRK
53	1	1	16	17-20
	2	2	11	12-15
	3	3	06	07-10
39	4	4	16	17-20
	5	5	11	12-15
	6	6	06	07-10

- 3) The use of ISM/ILTA Cable Assemblies, NTFX40DW, imposes a special MTAE configuration of CPs within the affected ISM shelves. Refer to design document MSFX4101 or Engineering Manual Section NTFX4101 for ISM shelf provisioning information.
- 4) Do not provision test access ISM/ILTA Cable Assys NTFX40DW in ISME which includes an AXU, NT3X89CA. That is, do not provide ILTA test access in the ISME which includes an AXU.
- 5) A maximum of 24 External Loop Test Trunks (horizontal) can be supported in a single ISME.
- 6) When dedicated and/or rover LTU/MTUs are to be allocated Test Access Group 6 cannot be used.

RUL2A 1) The ISM/VER 90 Cable Assy, NTFX40DX, is required for provisioning of VER 90 interface used in the MTAE application. Each NTFX40DX Cable Assy interconnects the E (top connector) of four slots assigned to Incoming/Outgoing Test Trunk CPs to the F Connector (lower) of an adjacent single slot assigned to the Improved Loop Test Access CP. To accommodate NTFX40DX, Cable Assy(s), the E Connectors of the ISM/MDF switchboard cable, at the slots connected to the ISM/ILTA Cable Assy(s), are disconnected and tied back.

- 2) Provide one (1) (1) ISM/VER 90 Cable Assy, NTFX40DX, for each group of four (4) VER 90 trunks. (One type of cable is all that is required for each grouping. See RUL1A for usage of the other cable NTFX40DW.) A maximum of three (3) ISM/VER 90 Cable Assy, NTFX40DX, may be provided at shelf position 53. A maximum of three (3) ISM/VER 90 Cable Assy, NTFX40DX, may be provided at shelf position 39. Slot allocations for ISM/VER 90 Cable Assy, NTFX40DX, are as follows:

SHELF POS	TEST ACCESS GROUP	CABLE ASSY	SLOT	
			ILTA	IC/OG TRK
53	1	1	16	17-20
	2	2	11	12-15
	3	3	06	07-10
39	4	4	16	17-20
	5	5	11	12-15
	6	6	06	07-10

- 3) The use of ISM/VER 90 Cable Assy, NTFX40DX, imposes a special MTAE configuration of CPs within the affected ISM shelves. Refer to design document MSFX4101 or Engineering Manual Section NTFX4101 for ISM shelf provisioning information.
- 4) Do not provision test access ISM/VER 90 Cable Assy, NTFX40DX, in ISME which includes an AXU, NT3X89CA. That is, do not provide ILTA test access in the ISME which includes an AXU.
- 5) A maximum of 24 External Loop Test Trunks (horizontal) can be supported in a single ISME.
- 6) When dedicated and/or rover LTU/MTUs are to be allocated Test Access Group 6 cannot be used.

ISM SHELF

PEC CODE: NTZZ40AD

CPC CODE: B0244492

RATING: Standard

REPLACES: NTZZ40AC

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ISM Shelf building block contains one ISM Shelf Assembly to be configured for the MTM or TM function and mounted on an ISME frame.

REFERENCE DOCUMENTATION: SLZZ40AD 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ40AD EMB2-02-ISM-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 10 05	ECM 557 16	Introduce building block NTZZ40AD.
96 03 25	ECM 557 22	Change name and rules to reflect usage as an MTM or TM shelf.
97 03 28	ECM 557 32	Clean-up of EMS and added fuse note for MSP fuses.
97 06 23	ECM 557 34	Update per EC 018-51054, adds keybrackets P0832926.

The ISM SHELF is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISM Shelf Assembly	NTFX4101	NOTE2	1	X		AP
ISM DC Converter	NTFX43AA		1	X	01	AP
Designation Label (NTFX43AA)	P0745439		1	X	01	AP
ISM Processor CP	NTFX42AA		1	X	21	AP
Designation Label (NTFX42AA)	P0745438		1	X	21	AP
Fuse 3amp Blue	A0205204		1	71		AP
Fuse 5amp Green	A0205205		2	71		AP
Fuse Block Designation 3A	P097P237		1	71		AP
Fuse Block Designation 5A	P097P238		2	71		AP
Terminal Ring	A0292996		1			AP
Insulation Boot	P0743593		10			AP
Bolt Head Cover	P0732389		10			AP
ISM Test Access Cable Assy	NTFX40DE			53, 21		RUL1
ISM Test Access Cable Assy	NTFX40DU			21		RUL1
Shorting Plug	NTFX40DF			X		RUL2
Connector Key Bracket	P0832926			X		RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ40AC	MD	NTZZ40AD

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 07,21,39,53 on ISME Frame.
- 2) The general abbreviation for the shelf assembly is ISM. However, ISM shelves are labelled with the abbreviation TM8, TM4, TM2 or MTM depending on the shelf function. The ISM functions as either an MTM or TM according to the software load applied.
- 3) Refer to the EMS for NTFX4101 ISM Shelf for provisioning rules concerning circuit packs needed for MTM or TM shelf functions.
- 4) Locate fuses and labels in the MSP, NTRX40AA on the ISME frame according to the following table.

PART	DESCRIPTION	ISM 3 POS 53	ISM 2 POS 39	ISM 1 POS 21	ISM 0 POS 07
A0205204	3A FUSE (FLT)	9F01	8F02	9F03	8F04
P097P237	DESIG DISK	9F01	8F02	9F03	8F04
A0205205	5A FUSE (SP1)	9F05	8F06	9F07	8F08
P097P238	DESIG DISK	9F05	8F06	9F07	8F08
A0205205	5A FUSE (SP2)	8F05	9F06	8F07	9F08
P097P238	DESIG DISK	8F05	9F06	8F07	9F08

RULES:

- AP 1) When PEC NTZZ40AD is ordered, these items are provided.
- RUL1 1) When ISM shelves are configured as TM8 in a DMS-300 office, and AXU shelf is not provided in the same frame, provide two ISM Test Access Cable Assy., NTFX40DE, per ISM frame. Also provide one ISM Test Access Cable Assy., NTFX40DU per ISM frame.
- RUL2 1) When an ISM shelf is configured for TM8 in a non-DMS-300 office, provide one (1) Shorting Plug, NTFX40DF per ISM/TM8 shelf provided located at TA.A on the backpanel between slots 20 and 21.

- RUL3 1) Provide two (2) Connector Key Bracket, P0832926, for each ISM Shelf slots 3 and 4. Do not provide if IOM is provisioned in the shelf.

ISM ALARM GROUP SHELVES

PEC CODE: NTZZ40AF

CPC CODE: B0246107

RATING: Standard

REPLACES: NTZZ40AE

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ISM Alarm Group Shelves building block contains one AXU Panel and two ISM Shelves (to be used as Primary and Secondary alarm shelves) for the first ISME Frame in an office.

REFERENCE DOCUMENTATION: SLZZ40AF 00 02

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ40AF EMB2-02-ISM-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 25 97 03 28	ECM 557 22 ECM 557 32	Introduce building block NTZZ40AF. Clean-up of EMS and added fuse notes for MSP fuses. Added three dummy fuses to stocklist of building block for MSP and shelf position 53 per SR RR73349.
97 06 23	ECM 557 34	Update per EC 018-51054, adds keybrackets P0832926.

The ISM ALARM GROUP SHELVES is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Alarm X-connect Unit	NT3X89CA	AXU	1	53R		AP
Filler Panel	P0575239		1	53		AP
Washer	P0284154		2	53		AP
Lockwasher	P0183220		2	53		AP
Screw	P097F813		8	53		AP
EAS Label	P0749661		2	71		AP
AXU/ISM2 Cable Assy.	NTFX40DS		1	53R		AP
Ground Cable Assy	NT0X95BY		1	53R		AP
OAU/AXU Cable Assy.	NTFX40DD		1	53		AP
Primary Alarm ISM Unit	NTFX4101	OAU	1	39		AP
ISM DC Converter	NTFX43AA		1	39	01	AP
Designation Label (NTFX43AA)	P0745439		1	39	01	AP
ISM Processor CP	NTFX42AA		1	39	21	AP
Designation Label (NTFX42AA)	P0745438		1	39	21	AP
Secondary Alarm ISM Unit	NTFX4101	OAU	1	21		AP
ISM DC Converter	NTFX43AA		1	21	01	AP
Designation Label (NTFX43AA)	P0745439		1	21	01	AP
ISM Processor CP	NTFX42AA		1	21	21	AP
Designation Label (NTFX42AA)	P0745438		1	21	21	AP
Fuse 3amp Blue	A0205204		2	71		AP
Fuse 5amp Green	A0205205		4	71		AP
Fuse Block Designation 3A	P097P237		2	71		AP
Fuse Block Designation 5A	P097P238		4	71		AP
Fuse Dummy	A0205210		3	71		AP
Terminal Ring	A0292996		2			AP
Insulation Boot	P0743593		20			AP
Bolt Head Cover	P0732389		20			AP
Quad DLC Daughter CP	NT3X8906		1			RUL1
Quad DLC Daughter 60V CP	NT3X8907		1			RUL1
Screw	P0180922		2			RUL1
Helical Washer	P0182948		2			RUL1
Flat Washer	P0284139		2			RUL1
Connector Key Bracket	P0832926			39, 21		RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For new offices provide one NTZZ40AE and mount in the first ISME frame of the office.
- 2) When the Alarm Cross-connect Unit (AXU) is mounted in the ISME frame, the ISM Shelf Assemblies in shelf positions 39 and 21 are used as Primary Alarm ISM Unit, and Secondary Alarm ISM Unit respectively. The Trunk Module Provisionable Card rules given in the Engineering Manual Table A, Section EMA14-01-000, should be applied accordingly.
- 3) Refer to the EMS for NTFX4101 ISM Shelf for provisioning rules concerning circuit packs needed for the Primary and Secondary alarm shelf functions.
- 4) Locate three (3) Fuse Dummy, A0205210, in the MSP, NTRX40AA, on the ISME frame for shelf position 53 which is NOT occupied by an ISM Shelf Assembly. Refer to the following table for MSP fuse positions.

PART	DESCRIPTION	POS 53
A0205210	Fuse Dummy	9F01
A0205210	Fuse Dummy	9F05
A0205210	Fuse Dummy	8F05

- 5) Locate fuses and labels in the MSP, NTRX40AA on the ISME frame according to the following table for shelf positions 39 and 21.

PART	DESCRIPTION	POS 39	POS 21
A0205204	3A FUSE (FLT)	8F02	9F03
P097P237	DESIG DISK	8F02	9F03
A0205205	5A FUSE (SP1)	8F06	9F07
P097P238	DESIG DISK	8F06	9F07
A0205205	5A FUSE (SP2)	9F06	8F07
P097P238	DESIG DISK	9F06	8F07

RULES:

- AP 1) When PEC NTZZ40AF is ordered, these items are provided.
- RUL1 1) The NT3X89CA contains provisionable daughter boards. Refer the the EMS for NT3X89CA for more information.
- a) Provide (1) NT3X8906 when provisioning for -48 volt (non-German) markets;
- b) Provide (1) NT3X8907 when provisioning for -60 volt German applications;
- c) Provide (2) Screws, P0180922, (2) Helical Washers, P0182948, and (2) Flat Washers, P0284139 for mounting NT3X3906 or NT3X8907. RUL2 1) Provide two (2) Connector Key Bracket, P0832926, for each ISM Shelf slots 3 and 4. Do not provide if IOM is provisioned in the shelf.

MISC. EQUIPMENT FOR CISM/ISM SHELVES W/IOM

PEC CODE: NTZZ40AG

CPC CODE: B0249516

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

| ENGINEERING DESCRIPTION: The Miscellaneous Equipment for CISM/ISM Shelves with IOM functional block contains items used when the ISM Shelf is provisioned on the CISM and will mount IOM CPs. See the EMS NTZZ47XA for additional ordering information.

REFERENCE DOCUMENTATION: SLZZ40AG 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ40AG EMB2-02-ISM-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 08 04	ECM 557 35	Introduce Functional Block NTZZ40AG.

The MISC. EQUIPMENT FOR CISM/ISM SHELVES W/IOM is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MDF Cable Assembly	NTFX40HC		1	X		AP
IOM BH Plate Assy	NTFX39AA		1	X		AP
NTFX39AA Diagram Label	P0871015		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 05,19,33,47 on CISM.

RULES:

- AP 1) When PEC NTZZ40AG is ordered, these items are provided.

ENHANCED LINE GROUP CONTROLLER ISDN

PEC CODE: NTZZ17TU

CPC CODE: B0247642

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: LGCI+

ENGINEERING DESCRIPTION: This Building Block provides the packfill for a Line Group Controller Module with increased capacity Unified Processor (XPM+), NT6X69AC and the Enhanced Processor NTAX74AA. (For this module with the NT6X69AD see NTZZ17TV.)

REFERENCE DOCUMENTATION: SLZZ17TU 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17TU EMB2-02-UPI-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 09 20	ECM 678 27	EC 024-96600 introduces NTAX74AA and Label. Introduce this BB w/NTAX74AA and NT6X69AC.
96 11 22	ECM 616 45	Per SRs RR66655 and RR66892, remove filler panel from CP position 17 (this position s/b provisionable).
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05
97 08 26	ECM 714 06	This BB is MD'd based on EC 024-98354 which eliminates provisioning of the NTAX74AA on the LGCI.

The Enhanced Line Group Controller ISDN is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1	X		AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	08,09, 10,11	AP
MCP - Enhanced Processor	NTAX74AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
Enh ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	08,09 10,11	AP
MCP - Enhanced Processor	NTAX74AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
Enh ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label for NTAX74AA	P0800860		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label for NTAX74AA	P0800860		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on the NT6X01AD to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17TU is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP and is shown here for completeness.

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CLASS MODEM RESOURCE

PEC CODE: NTZZ02EA

CPC CODE: B0231739

RATING: Standard

| REPLACES: NTZZ97AA

REPLACED BY: None

ABBREVIATION NAME: CMR

ENGINEERING DESCRIPTION: The NTZZ02EA Module contains the circuit packs required for the CLASS Calling Number Delivery feature.

REFERENCE DOCUMENTATION: SLZZ02EA 00 02

MARKETS: Applicable markets:

| US
Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ02EA EMB2-06-CMR-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 08 26	ECM 616 07	Re-release changes made via ECM 616 05
93 03 08	ECM 676 01	Add slot position for SMA application.
95 03 16	ECM 616 31	Add LGCI, LTCI and DTCI applications.
96 04 26	ECM 373 45	Change the description and market of this BB to be for all applicable markets instead of Canada only.

The CLASS Modem Resource is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CLASS Modem Resource CP	NT6X78AB		1	X+14	YY	AP
CLASS Modem Resource CP	NT6X78AB		1	X	YY	AP
Desig Label (NT6X78AB)	P0731980		1	X+14	YY	AP
Desig Label (NT6X78AB)	P0731980		1	X	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

X = Shelf Position 18 or 51 (18 only for RCCI)

YY = 13 for LGC/LTC/LGCI/LTCI/DTCI/SMUI.

YY = 16 for SMS/SMU.

YY = 17 for SMA.

YY = 18 for RCCI.

RULES:

AP 1) When PEC NTZZ02EA is ordered, these items are provided.

CONTINUITY TONE DETECTOR

NTZZ04CA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ04CA Module contains the circuit packs needed when continuity tone detection is required for SS7.

REFERENCE DOCUMENTATION: SLZZ04CA 00 01
NTZZ04CA REL 01

The Continuity Tone Detector is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Continuity Tone Detector CP	NT6X70AA		1	X+14	13	AP
Continuity Tone Detector CP	NT6X70AA		1	X	13	AP
Desig Label (NT6X70AA)	P0628358		1	X+14	13	AP
Desig Label (NT6X70AA)	P0628358		1	X	13	AP

NOTES:

The NTZZ04CA can be assigned to shelf mounting positions 18 and 51 (i.e. for one module X=18 and for the other module X=51) at card slots 13.

RULES:

AP 1) When PEC NTZZ04CA is ordered, these items are provided.

2 SCM DS-1 INTERFACES

PEC CODE: NTZZ03FA

CPC CODE: NTZZ03FA

RATING: Standard

REPLACES: NONE

REPLACED BY: NONE

ABBREVIATION NAME: SCM DS-1

ENGINEERING DESCRIPTION: The NTZZ03FA Module contains the circuit packs required for DS-1 interface to Subscriber Carrier Modules (SMS,SMU, and SMSR)

REFERENCE DOCUMENTATION: SLZZ03FA 00 02
NTZZ03FA REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ03FA EMB2-06-DS1-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 11 22	----- ECM 616 45	Previous history not available Per EC 24-96637 replace with NT6X85AB with NT6X85AC.

The 2 SCM DS-1 Interfaces is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SCM DS-1 Interface CP	NT6X85AC		1	XX	YY	AP
Desig Label (NT6X85AC)	P0801996		1	XX	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

Note - XX = Shelf Position 18,32,51,65.
YY = Card Position 1,2,3,4,or 5.

RULES:

AP 1) When PEC NTZZ03FA is ordered, these items are provided.

DIGITAL TRUNK CONTROLLER

PEC CODE: NTZZ04BA

CPC CODE: B0231753

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: DTC

ENGINEERING DESCRIPTION: The NTZZ04BA is the common circuit pack fill for DTC application with network interface, 480 trunk capacity UTR, and CCS7 capability.

The Digital Trunk Controller (DTC) is the host office peripheral controller for digital trunking in a host location.

The MP, SP circuit packs NT6X45BA, NT6X46BA/BB and NT6X47BC are being MD'ed. The replacement is the NTMX77AA for XPM+ applications and for all new builds. For replacement in the field, the BCS load must be 35 or greater.

This building block is designed to support domestic applications only.

REFERENCE DOCUMENTATION: SLZZ04BA 00 11
NTZZ04BA REL 09

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: NTI: Deborah Goss Dept. 5876 RICH)

CONTACT: NTI: Jim Large Dept. 5849 RICH)

CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NTZZ04BA EMB2-06-DTC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 02 25	ECM 673 01	Release Level Change - contents of NT6X02IC Packfill being "exploded" into the NTZZ04BA BBLK.
93 04 01	ECM 673 02	Documentation Change - circuit pack position assigned to the NT6X02IC Designation Strip is being removed from the NTZZ04BA EMS, stocklist is correct, no change required.
93 10 15	ECM 687 01	The NT6X02IC Packfill is being "UXB" (Unexploded) back into the stocklist of the NTZZ04BA.
94 10 28	ECM 373 33	Revise stocklist of NTZZ04BA; replace NT6X02IC with NT6X02IG while keeping circuit packs in NTZZ04BA the same.
95 04 25	ECM 492 19	JEL: EC 018-45164 replaces the NT2X70AE with the NT2X70AF.
95 06 06	ECM 492 20	JEL: Add NT2X70AF designation labels for the MCTM-I cabinet.
95 06 12	ECM 492 21	DGB: Change rating to MD.
95 08 04	ECM 492 23	DGB: Change rating to back to standard
95 08 24	ECM 492 24	DKG: MD NT6X02IG and replace with NT6X02IH per ET 70023.
95 10 06	ECM 492 26	DKG: Clarify that this building block supports domestic applications only.
96 04 26	ECM 373 45	EC 024-95240 removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02CZ.

The Digital Trunk Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# DTC Common Packfill	NT6X02IG		1			AP
DTC Common Packfill	NT6X02CZ		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8, 12	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
Filler Face Plate 0.875	NT0X50AA		6	X+14	6, 7 9, 17 19, 23	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter CP	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
# Power Conv +/- 5 & 12V CP	NT2X70AE		1	X+14	25	AP-01
Power Conv +/- 5 & 12V CP	NT2X70AF		1	X+14	25	AP
XPM Processor CP	NT6X45BA		2	X	8, 12	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
Filler Face Plate 0.875	NT0X50AA		6	X	6, 7 9, 17 19, 23	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter CP	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
# Power Conv +/- 5 & 12V CP	NT2X70AE		1	X	25	AP-01
Power Conv +/- 5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Label for NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip For NT6X02CZ	P0833750		1	X+14		AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8, 12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Strip For NT2X70AF	P0809960		1	X	25	AP
Desig. Strip For NT6X02CZ	P0833750		1	X		AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8, 12	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP

EQUIPMENT FLAGGED '#' :

PEC	RATING	REPLACED BY PEC
NT6X02IC	MD	NT6X02IG
NT2X70AE	MD	NT2X70AF
NT6X02IG	MD	NT6X02IH

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

AP 1) When PEC NTZZ04BA is ordered, these items are provided.

- 1) Items marked AP-01 are always provided on the NT6X02CZ CP, and are shown here for completeness.

DS0A SIGNALING INTERFACE

NTZZ04AA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ04AA DS0A Signaling Interface provides a 56Kb/s or 64Kb/s CCS7 link on the DTC.

REFERENCE DOCUMENTATION: SLZZ04AA 00 01
NTZZ04AA REL 01

The NTZZ04AA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS0A Interface CP	NT6X55AB		1	XX	YY	AP
Desig. Label For NT6X55AB	P0702525		1	XX	YY	AP

NOTES:

- 1) The NT6X55AB can be assigned to shelf mounting positions XX = 18, 32, 51, 65 and CP slot positions YY = 1,2,3,4,5.

RULES:

- AP 1) When PEC NTZZ04AA is ordered, these items are provided.

DIGITAL TRUNK CONTROLLER FOR DWS

PEC CODE: NTZZ04BB

CPC CODE: B0236676

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DTC

ENGINEERING DESCRIPTION: The NTZZ04BB is the common circuit packfill for DTC application with copper network interface, 480 trunk capacity, UTR, and CCS7 capability.

The Digital Trunk Controller (DTC) is the host office peripheral controller for digital trunking in a host location. This packfill is used in Dialable Wideband Service applications.

REFERENCE DOCUMENTATION: SLZZ04BB 00 06
NTZZ04BB REL 05

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ04BB EMB2-06-DTC-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 02 25	ECM 673 01	Used on NTZZ22AA, NTZZ22BA, NTZZ22DA and the NTZZ17AM to support the introduction of DWS. The NT6X02IG packfill is being exploded within the NTZZ04BB BBLK packfill.
93 10 15	ECM 687 01	The NT6X02IG Packfill is being "UXB" (Unexploded) back into the stocklist of the NTZZ04BB.
95 04 12	ECM 373 39	Update BB with new packfill per EC#024-93969.
96 04 26	ECM 373 45	EC 024-95240 Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02CZ.

The Digital Trunk Controller for DWS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTC Common Packfill	NT6X02CZ		1	X		AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Enhanced Time Switch CP	NTAX78AA		1	X+14	14	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	6,7 9	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Msg.	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler faceplate	NT0X50AA		1	X+14	24	AP-01
Power Converter	NT2X70AF		1	X+14	25	AP
Designation Strip	P0833750		1	X+14		AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Enhanced Time Switch CP	NTAX78AA		1	X	14	AP
Filler Face Plate 0.875	NT0X50AA		3	X	6,7 9	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Msg.	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler faceplate	NT0X50AA		1	X	24	AP-01
Power Converter	NT2X70AF		1	X	25	AP
Designation Strip	P0833750		1	X		AP-01
Desig. Label For NTAX78AA	P0737140		1	X+14	14	AP
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Label For NTAX78AA	P0737140		1	X	14	AP
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) One DTC Common CP can be assigned on the frame to shelf mounting positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

2) Items marked AP01 are included in NT6X02CZ and are shown for completeness.

RULES:

AP 1) When PEC NTZZ04BB is ordered, these items are provided.

DTC MODULE WITH XPM+ FOR DWS

PEC CODE: NTZZ04KA

CPC CODE: B0238883

RATING: Standard.

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This Building Block provides the packfill for a DTC Module equipped with the increased capacity Unified Processor (XPM+) and support for Dialable Wideband Services (DWS).

REFERENCE DOCUMENTATION: SLZZ04KA 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ04KA EMB2-06-DTC-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 05 20	ECM 373 27	support DTC XPM Plus and DWS. EC 24-92162 adds one P0749586 for each NTMX71AA.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The DTC Module with XPM+ for DWS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler faceplate	NT0X50AA		2	X,X+14	24	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP
Designation Strip	P0741369		2	X,X+14		AP
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
Enhanced Time Switch CP	NTAX78AA		2	X,X+14	14	AP
Messaging Pack	NT6X69AC		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NTAX78AA)	P0737140		2	X,X+14	14	AP
Desig. label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX can be either 18 or 51.

RULES:

AP 1) When PEC NTZZ04KA is ordered, these items are provided.

DTC MODULE COMMON CIRCUIT PACKS WITH XPM+

PEC CODE: NTZZ04HB

CPC CODE: B0239940

RATING: Standard

REPLACES: NTZZ04HA

REPLACED BY: None

ABBREVIATION NAME: DTC+

ENGINEERING DESCRIPTION: This Building Block provides the packfill
for a DTC Module equipped with the increased
capacity Unified Processor (XPM+).REFERENCE DOCUMENTATION: SLZZ04HB 00 04
NTZZ04HB REL 04

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ04HB EMB2-06-DTC-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 11 16	ECM 678 07	Introduce NTZZ04HB Building Block.
94 05 20	ECM 373 27	EC#024-92162 adds one P0749586 for each NTMX71AA.
95 04 12	ECM 373 39	Update BB with new packfill per EC#024-93969.
96 04 26	ECM 373 45	EC 024-95240 Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02CZ.

The DTC Module Common Circuit Packs with XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTC Packfill	NT6X02CZ		1	X		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833750		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
Messaging Pack	NT6X69AC		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Desig. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. Label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Desig. Label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX can be either 18 or 51.

- | 2) Items marked AP01 are included in NT6X02CZ and are shown for completeness.

RULES:

- AP 1) When PEC NTZZ04HB is ordered, these items are provided.

DTC MODULE COMMON CIRCUIT PACKS WITH XPM+

PEC CODE: NTZZ04HD

CPC CODE: B0244614

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DTC+

ENGINEERING DESCRIPTION: This Building Block provides the packfill for a DTC Module equipped with the increased capacity Unified Processor (XPM+) and NT6X69AD Message Protocol & Tone CP for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ04HD 00 02
NTZZ04HD REL 02
NT6X02CZ 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ04HD EMB2-06-DTC-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 678 24	EC 024-95229- replaces NT6X69AC with NT6X69AD for new production, so the NTZZ04HD BB is being introduced for DTC+ to have the NT6X69AD.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02CZ.
97 01 07	ECM 373 47	Add insertion guide. Correct reference documentation listed on cover sheet.

The DTC Module Common Circuit Packs with XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTC Packfill	NT6X02CZ		1	X		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833750		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
CPP Msg Protocol & Tone CP	NT6X69AD		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Desig. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. Label (NT6X69AD)	P0800014		2	X,X+14	18	AP
Desig. Label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position X can be either 18 or 51.

- 2) Items marked AP-01 are included in NT6X02CZ and are shown for completeness.

RULES:

- AP 1) When PEC NTZZ04HD is ordered, these items are provided.

DTC MODULE WITH XPM+ FOR DWS

PEC CODE: NTZZ04KD

CPC CODE: B0244615

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DTC+

ENGINEERING DESCRIPTION: This Building Block provides the packfill for a DTC Module equipped with the increased capacity Unified Processor (XPM+) and NT6X69AD Message Protocol & Tone CP for BCS-36+ and beyond to support Dialable Wide-band Services (DWS).

REFERENCE DOCUMENTATION: SLZZ04KD 00 02
NTZZ04KD REL 02

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ04KD EMB2-06-DTC-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 678 24	EC 024-95229- replaces NT6X69AC with NT6X69AD for new production, so the NTZZ04KD BB is being introduced for DTC+ to have the NT6X69AD.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02CZ. Add insertion guide.

The DTC Module with XPM+ for DWS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTC Packfill	NT6X02CZ		1	X		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Designation Strip	P0833750		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
Enhanced Time Switch CP	NTAX78AA		2	X,X+14	14	AP
CPP Msg Protocol & Tone CP	NT6X69AD		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NTAX78AA)	P0737140		2	X,X+14	14	AP
Desig. Label (NT6X69AD)	P0800014		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position X can be either 18 or 51.

- | 2) Items marked AP-01 are included in NT6X02CZ and are shown for completeness.

RULES:

- AP 1) When PEC NTZZ04KD is ordered, these items are provided.

ISDN XPM PLUS DTC

PEC CODE: NTZZ17SM

CPC CODE: B0238733

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: DTCI+

ENGINEERING DESCRIPTION: The NTZZ17SM contains the necessary circuit packfills for an ISDN XPM PLUS Digital Trunk Controller.

REFERENCE DOCUMENTATION: SLZZ17SM 00 05
NTZZ17SM REL 05MARKETS: Applicable markets:
Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17SM EMB2-06-DTP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 12	ECM 616 12	Introduce the NTZZ17SM for ISDN XPM PLUS Digital Trunk Controller.
93 12 06	ECM 616 17	Change quantity of AP01 NT0X50AA to match SL6X02NA issue 03
94 08 01	ECM 616 22	EC 24-92162 adds one P0749586 for each NTMX71AA.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 04 04	ECM 616 33	Correct Market.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892, remove reference to extraneous filler panel in CP position 17.
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN XPM Plus DTC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	08,09, 10,11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
Unified Processor CP	NTMX77AA		1	X	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	08,09 10,11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on the NTZZ17AT to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17SM is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN XPM PLUS DTC

PEC CODE: NTZZ17ST

CPC CODE: B0244612

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DTCI+

ENGINEERING DESCRIPTION: The NTZZ17ST contains the necessary circuit packfills for an ISDN XPM PLUS Digital Trunk Controller as well as the NT6X69AD Message Protocol & Tone CP for BSC-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ17ST 00 02
NTZZ17ST REL 02

MARKETS: Applicable markets:
Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17ST EMB2-06-DTP-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 678 24	EC 024-95229- replaces NT6X69AC with NT6X69AD for new production, so the NTZZ17ST BB is being introduced for DTCI+ to have the NT6X69AD.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892, remove reference to filler panel in CP position 17 (this position s/b provisionable). Add insertion guide (P0749586) for NTMX71AA paddleboard.
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN XPM Plus DTC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1	X		AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	08,09, 10,11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Unified Processor CP	NTMX77AA		1	X	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	08,09 10,11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on the NTZZ17AT or later BB to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17ST is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ENHANCED DIGITAL TRUNK CONTROLLER ISDN (DTCI)

PEC CODE: NTZZ17SV

CPC CODE: B0247688

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: DTCI+

ENGINEERING DESCRIPTION: The NTZZ17SV contains the necessary circuit packfills for an ISDN XPM PLUS Digital Trunk Controller as well as the NT6X69AD Message Protocol & Tone CP for BSC-36+ and beyond. The NTAX74AA processor is also part of this Building Block making it "Enhanced". The NTAX74AA is not compatible with the NT7X05AA.

REFERENCE DOCUMENTATION: SLZZ17SV 00 01

MARKETS: Applicable markets:
Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17SV EMB2-06-DTP1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 09 20	ECM 616 44	Create BB NTZZ17SV with the NTAX74AA and NT6X69AD.
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17)
97 08 26	ECM 714 06	Update rules per EC 024-98354 to reflect NTAX74AA provisioning restrictions.

The ENHANCED DIGITAL TRUNK CONTROLLER ISDN (DTCI) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
MCP-MCS Cellular Processor	NTAX74AA		1	X+14	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	08,09, 10,11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
MCP-MCS Cellular Processor	NTAX74AA		1	X	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	08,09 10,11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label for NTAX74AA	P0800860		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label for NTAX74AA	P0800860		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

AP 1) When PEC NTZZ17SV is ordered, these items are provided.

AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

RUL1 This building block can ONLY be provided for DTCI used in MCI ACD applications. It cannot be provided for any other DTCI applications.

ISDN XPM DTC

PEC CODE: NTZZ17SA

CPC CODE: B0238730

RATING: MD

REPLACES: None

REPLACED BY: NTZZ17ST

ABBREVIATION NAME: DTCI

ENGINEERING DESCRIPTION: The NTZZ17SA contains the necessary circuit packfills for ISDN XPM Digital Trunk Controller applications on the NT6X01AD frame.

REFERENCE DOCUMENTATION: SLZZ17SA 00 01

MARKETS: Applicable markets:
Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17SA EMB2-06-DTX CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 12	ECM 616 12	Introduce the NTZZ17SA for ISDN XPM Digital Trunk Controller.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 04 04	ECM 616 33	Correct Market.
96 11 22	ECM 616 45	Per EC 024-96589, MD this building block as the NTB01BA will not work with the MP processors.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17).

The ISDN XPM DTC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01AB		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01AB		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01AB	P0735418		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NTBX01AB	P0735418		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on NT6X01AD in shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17SA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ENHANCED ISDN SIGNALLING PRE-PROCESSOR

PEC CODE: NTZZ03AJ

CPC CODE: B0244842

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ03AJ contains two Enhanced ISDN Pre-Processor CPs and their labels. Check the XPM module provisioning for software requirements.

REFERENCE DOCUMENTATION: SLZZ03AJ 00 01
NTZZ03AJ REL 01

MARKETS: Applicable markets:

US
Canada
CALA

| ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

| MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03AJ EMB2-06-EISP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 676 12	Introduce this BB as provisionable to SMA in its first application.
97 08 26	ECM 714 06	Correct CPC code foe designation label (per SR RR 77733).

The ENHANCED ISDN SIGNALLING PRE-PROCESSOR is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced ISDN Pre-Processor	NTBX01BA		2	X,X+14	16	AP
Designation Label (NTBX01BA)	P0713794		2	X,X+14	16	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For SMA frame application, X=18 for first module and X=51 for second module.
- 2) For SMA cabinet application, X=05 for first module and X=33 for second module.

RULES:

- AP 1) When PEC NTZZ03AJ is ordered, these items are provided.

ENHANCED PROCESSOR

PEC CODE: NTZZ03AC

CPC CODE: B0244770

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ03AC contains two Enhanced Processor CPs and labels. Check the XPM module provisioning for software requirements.

REFERENCE DOCUMENTATION: SLZZ03AC 00 01
NTZZ03AC REL 01

MARKETS: Applicable markets:

US
Canada
CALA

| ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

| MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03AC EMB2-06-EP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 676 12	EC 011-21580 Introduces the new NTAX74AA and makes it and the Unified Processor NTMX77AA provisionable to the new packfill NT6X02TJ. This BB is introduced in its first application as a provisionable Enhanced Processor to SMA.
96 09 20	ECM 616 44	EC 024-96600 Introduces the NTAX74AA Processor on LTCI, DTCI and LGCI (to include the ISDN-DWS)
97 08 26	ECM 714 06	EC 024-98354 restricts provisioning of NTAX74AA in DTCI to MCI ACD apps, and removes provisioning of the AX74 from LTCI/LGCI.

The ENHANCED PROCESSOR is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced Processor	NTAX74AA		2	X,X+14	Y	AP
Desig. Label for NTAX74AA	P0800860		2	X,X+14	Y	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame application, X=18 for first module and X=51 for second module.
- 2) For cabinet application, X=05 for first module and X=33 for second module.
- 3) For frame or cabinet application, Y=12 for slot location.

RULES:

AP 1) When PEC NTZZ03AC is ordered, these items are provided.

RUL1 This building block cannot be provisioned for LTCI/LGCI applications, and is allowed on DTCI for MCI ACD applications ONLY.

30 GLOBAL TONE RECEIVER CIRCUITS

PEC CODE: NTZZ02FC

CPC CODE: B0246105

RATING: Standard.

REPLACES: NTZZ02FA, NTZZ02FB

REPLACED BY: Not Applicable

ABBREVIATION NAME: GTR

| ENGINEERING DESCRIPTION: The NTZZ02FC contains Global Tone Receiver CPs which are the LSSGR/CCITT compliant tone receivers and can be used in all markets.

REFERENCE DOCUMENTATION: SLZZ02FC 00 01
NTZZ02FC REL 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ02FC EMB2-06-GTR-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 04 26	ECM 373 45	To introduce the GTR.

The 30 GLOBAL TONE RECEIVER CIRCUITS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Global Tone Receiver	NT6X92EA	GTR	2	X,X+14	YY	AP
Designation Label (6X92EA)	P0835224		2	X,X+14	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Refer to the respective frame or cabinet Engineering Manual Section for shelf and slot mounting location.

RULES:

- AP 1) When PEC NTZZ02FC is ordered, these items are provided.

LINE GROUP CONTROLLER

PEC CODE: NTZZ02BA

CPC CODE: B0231736

RATING: Standard

REPLACES:

REPLACED BY:

ABBREVIATION NAME: LGC

ENGINEERING DESCRIPTION: The Line Group Controller (LGC) Module is the host office peripheral controller for all subscriber lines either host or remote location.

REFERENCE DOCUMENTATION: SLZZ02BA 00 06

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02BA EMB2-06-LGC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The Line Group Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGC Common CP	NT6X02LC		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	9,17, 19,23	AP
Master Processor Memory CP	NT6X47AC		1	X+14	10	AP
Signal Processor Memory CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP-01
Message Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter CP	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	9,17, 19,23	AP
Master Processor Memory CP	NT6X47AC		1	X	10	AP
Signal Processor Memory CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP-01
Message Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter CP	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

Desig Strip (NT6X02LC)	P0708171		1	X+14		AP-01
Desig Label (NT6X45BA)	P0665152		2	X+14	8,12	AP
Desig Label (NT6X47AC)	P0711663		1	X+14	10	AP
Desig Label (NT6X46BB)	P0711664		1	X+14	11	AP
Desig Label (NT6X69AC)	P0710476		1	X+14	18	AP
Desig Label (NT2X70AF)	P0809960		1	X+14	25	AP

Desig Strip (NT6X02LC)	P0708171		1	X		AP-01
Desig Label (NT6X45BA)	P0665152		2	X	8,12	AP
Desig Label (NT6X47AC)	P0711663		1	X	10	AP
Desig Label (NT6X46BB)	P0711664		1	X	11	AP
Desig Label (NT6X69AC)	P0710476		1	X	18	AP
Desig Label (NT2X70AF)	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One LGC Common CP can be assigned on the frame to shelf mounting positions 65 and 51, and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

- 2) For more information on the frame refer to the section on NTZZ22AA or NTZZ22BA (Section 02-06-000).

RULES:

- AP 1) When PEC NTZZ02BA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02LC LGC Common CP, and is shown here for completeness.

LGC MODULE COMMON CIRCUIT PACKS WITH XPM+

PEC CODE: NTZZ02QA

CPC CODE: B0238302

RATING: Standard.

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: LGC+

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an LGC Module equipped with the increased capacity Unified Processor (XPM+).

REFERENCE DOCUMENTATION: SLZZ02QA 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02QA EMB2-06-LGC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 22	ECM 678 01	Introduce NTZZ02QA Building Block.
93 10 14	ECM 678 06	Include packfill in Building Block.
94 05 20	ECM 373 27	EC 24-92162 adds one P0749586 for each NTMX71AA.
94 07 31	ECM 373 28	Add cabinet module locations.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The LGC Module Common Circuit Packs with XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGC Packfill	NT6X02LC		1	X		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Time Switch CP	NT6X44AA		2	X,X+14	14	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Designation Strip	P0708171		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
Messaging Pack	NT6X69AC		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02QA is ordered, these items are provided.
- AP-01 2) This PEC is always provided on the NT6X02LC LGC Common CP, and is shown here for completeness.

LGC+ MODULE WITH EDC

PEC CODE: NTZZ02QM

CPC CODE: B0239287

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an LGC Module equipped with the increased capacity Unified Processor (XPM+) and HDLC Messaging packs for Extended Distance Capability (EDC) to Remote Switching Centers.

REFERENCE DOCUMENTATION: SLZZ02QM 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02QM EMB2-06-LGC-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 26	ECM 328 11	Introduce NTZZ02QM (EC#024-90441).
94 05 20	ECM 373 27	EC 24-92162 adds one P0749586 for each NTMX71AA.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The LGC+ Module with EDC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler faceplate	NT0X50AA		2	X,X+14	24	AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP
Designation Strip	P0708171		2	X,X+14		AP
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
EDC Messaging Pack	NTMX76AA		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NTMX76AA)	P0744109		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX can be either 18 or 51.
- 2) This Building Block is based on the NT6X02LC packfill.

RULES:

AP 1) When PEC NTZZ02QM is ordered, these items are provided.

LGC+ MODULE W/EDC AND ADSI/SCWID

PEC CODE: NTZZ02QN

CPC CODE: B0248532

| RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an LGC Module equipped with the increased capacity Unified Processor (XPM+) and HDLC Messaging packs for Extended Distance Capability (EDC) with ADSI/SCWID to Remote Switching Centers.

REFERENCE DOCUMENTATION: SLZZ02QN 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ02QN EMB2-06-LGC-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 03 11	ECM 714 02	Introduce NTZZ02QN (EC#024-97290).

The LGC+ MODULE W/EDC AND ADSI/SCWID is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler faceplate	NT0X50AA		2	X,X+14	24	AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP
Designation Strip	P0708171		2	X,X+14		AP
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
EDC Messaging Pack	NTMX76AB		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NTMX76AB)	P0857783		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX can be either 18 or 51.
- 2) This Building Block is based on the NT6X02LC packfill.

RULES:

AP 1) When PEC NTZZ02QN is ordered, these items are provided.

LINE GROUP CONTROLLER COMMON CP

PEC CODE: NTZZ02QJ

CPC CODE: B0241772

RATING: STD

REPLACES: NTZZ02QH

REPLACED BY: None

ABBREVIATION NAME: LGC

ENGINEERING DESCRIPTION: The NTZZ02QJ contains the necessary circuit packfill for one XPM PLUS Line Group Controller module equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ02QJ 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02QJ EMB2-06-LGC-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 28	ECM 373 33	Introduce the NTZZ02QJ Building Block.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The LINE GROUP CONTROLLER COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGC Common CP	NT6X02LC		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02LC	P0708171		1	X+14	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02LC	P0708171		1	X	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02QJ is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02LC LGC Common CP, and is shown here for completeness.

ISDN LINE GROUP CONTROLLER COMMON CP

PEC CODE: NTZZ17RS

CPC CODE: B0241781

RATING: STD

REPLACES: NTZZ17RR

REPLACED BY: None

ABBREVIATION NAME: LGCI+

ENGINEERING DESCRIPTION: The NTZZ17RS contains the necessary circuit packfill for one ISDN XPM PLUS Line Group Controller module equipped with NT6X69AD Message Protocol and Tone CPS for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ17RS 00 04
NTZZ17RS REL 04

MARKETS: Applicable markets:

Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17RS EMB2-06-LGC-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 28	ECM 373 33	Introduce the NTZZ17RS Building Block.
95 04 12	ECM 373 39	Update BB with NT2X70AF per EC#024-93972.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892 , remove reference to extraneous filler panel in CP position 17.
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN LINE GROUP CONTROLLER COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X= 33 for the other.

RULES:

- AP 1) When PEC NTZZ17RS is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN XPM PLUS LGC

PEC CODE: NTZZ17RM

CPC CODE: B0238732

RATING: STD

REPLACES: NTZZ17RA, NTZZ17GB, NTZZ17CA

REPLACED BY: None

ABBREVIATION NAME: LGCI+

ENGINEERING DESCRIPTION: The NTZZ17RM contains the necessary circuit packfills for an ISDN XPM PLUS Line Group Controller.

REFERENCE DOCUMENTATION: SLZZ17RM 00 04
NTZZ17RM REL 04

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17RM EMB2-06-LGP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 12	ECM 616 12	Introduce the NTZZ17RM for ISDN XPM PLUS Line Group Controller.
93 12 06	ECM 616 17	Change quantity of AP01 NT0X50AA to match SL6X02NA issue 03
94 07 31	ECM 373 28	EC 24-92162 adds one P0749586 for each NTMX71AA.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 04 04	ECM 616 33	Correct Market.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892, remove reference to filler panel in CP position 17 (this position s/b provisionable). Update "replaces" section on front sheet to show this BB replaces NTZZ17RS, NTZZ17GB, and NTZZ17CA.
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN XPM Plus LGC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ17RM is ordered, these items are provided.
- AP-01 2) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN XPM LGC

PEC CODE: NTZZ17RA

CPC CODE: B0238729

RATING: MD

REPLACES: None

REPLACED BY: NTZZ17RM

ABBREVIATION NAME: CPCI

ENGINEERING DESCRIPTION: The NTZZ17RA contains the necessary circuit packfills for ISDN XPM Line Group Controller applications on the NT6X01AD frame.

REFERENCE DOCUMENTATION: SLZZ17RA 00 01

MARKETS: Applicable markets:

Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17RA EMB2-06-LGX CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 12	ECM 616 12	Introduce the NTZZ17RA for ISDN XPM Line Trunk Controller.
93 11 10	ECM 616 16	ET 112810 Correct NTZZ17RA Description
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 04 04	ECM 616 33	Correct Market.
96 11 22	ECM 616 45	Per EC 024-96589 MD this building block as the NTB01BA will not work with the MP processors.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17).

The ISDN XPM LGC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01AB		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01AB		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01AB	P0735418		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NTBX01AB	P0735418		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on NT6X01AD in shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17RA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

10 DS30A LCM INTERFACES

PEC CODE: NTZZ02KA

CPC CODE: B0232276

RATING: Standard.

REPLACES: NTZZ02JA

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ02KA Module contains the circuit packs required for 10 DS30A interface to LCMs.

REFERENCE DOCUMENTATION: SLZZ02KA 00 01
NTZZ02KA REL 01

MARKETS: Applicable markets:

US
Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI James Marsden Dept. 3471 (PPK)

MAIN CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NTZZ02KA EMB2-06-LIF-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 10 08	----- ECM 600 08	Previous history not available ET 39143-Replace NTZZ02JA with NTZZ02KA and change Mkt tags per BAT decision. ET 45563
94 03 11	ECM 683 03	

The 10 DS30A LCM Interfaces is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30A LCM Interface CP	NT6X48AA		2	X+14, Y		AP
Desig Label (NT6X48AA)	P0626877		2	X	X+14, Y	AP
				X		

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

| 1) X = Shelf position occupied in the containing cabinet.

| RULES:

| AP 1) When PEC NTZZ02KA is ordered, these items are provided.

LINE TRUNK CONTROLLER

PEC CODE: NTZZ02CA

CPC CODE: B0231737

RATING: Standard

REPLACES: Not applicable

REPLACED BY: Not applicable

ABBREVIATION NAME: LTC

ENGINEERING DESCRIPTION: The Line Trunk Controller (LTC) Module is the host office peripheral controller module for all subscriber lines served by LCMs,RLCMs and trunks either host or remote location.

REFERENCE DOCUMENTATION: SLZZ02CA 00 06

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02CA EMB2-06-LTC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
94 03 11	ECM 683 03	ET 45573
94 08 04	ECM 683 07	Change Notes to reflect cabinet mounting positions
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The Line Trunk Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC Common CP	NT6X02MC		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	9,17, 19,23	AP
Master Processor Memory CP	NT6X47AC		1	X+14	10	AP
Signal Processor Memory CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP-01
Message Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter CP	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	9,17, 19,23	AP
Master Processor Memory CP	NT6X47AC		1	X	10	AP
Signal Processor Memory CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP-01
Message Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter CP	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

Desig Strip (NT6X02MC)	P0708172		1	X+14		AP-01
Desig Label (NT6X45BA)	P0665152		2	X+14	8,12	AP
Desig Label (NT6X47AC)	P0711663		1	X+14	10	AP
Desig Label (NT6X46BB)	P0711664		1	X+14	11	AP
Desig Label (NT6X69AC)	P0710476		1	X+14	18	AP
Desig Label (NT2X70AF)	P0809960		1	X+14	25	AP
Desig Strip (NT6X02MC)	P0708172		1	X		AP-01
Desig Label (NT6X45BA)	P0665152		2	X	8,12	AP
Desig Label (NT6X47AC)	P0711663		1	X	10	AP
Desig Label (NT6X46BB)	P0711664		1	X	11	AP
Desig Label (NT6X69AC)	P0710476		1	X	18	AP
Desig Label (NT2X70AF)	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One LTC Common CP can be assigned on the cabinet to shelf mounting positions 47 and 33 and the other to shelf mounting positions 19 and 05. For one module X=05 and the other module X=33.
- 2) For more information on the cabinet refer to the section on NTZZ22AA or NTZZ22BA (Section EMB2-06-000).

RULES:

- AP 1) When PEC NTZZ02CA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02MC LGC Common CP,
and is shown here for completeness.

LTC MODULE COMMON CIRCUIT PACKS WITH XPM+

PEC CODE: NTZZ02PA

CPC CODE: B0238301

RATING: Standard.

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: LTC+

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an LTC Module equipped with the increased capacity Unified Processor (XPM+).

REFERENCE DOCUMENTATION: SLZZ02PA 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02PA EMB2-06-LTC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 22	ECM 678 01	Introduce NTZZ02PA Building Block.
93 10 14	ECM 678 06	Include packfill in Building Block.
94 05 20	ECM 373 27	EC 24-92162 adds one P0749586 for each NTMX71AA.
94 07 31	ECM 373 28	Add cabinet module locations.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The LTC Module Common Circuit Packs with XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC Packfill	NT6X02MC		1	X		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Time Switch CP	NT6X44AA		2	X,X+14	14	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Designation Strip	P0708172		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
Messaging Pack	NT6X69AC		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02PA is ordered, these items are provided.
- AP-01 2) This PEC is always provided on the NT6X02MC LTC Common CP, and is shown here for completeness.

LTC+ MODULE WITH EDC

PEC CODE: NTZZ02PM

CPC CODE: B0239286

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: LTC+ w/EDC

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an LTC Module equipped with the increased capacity Unified Processor (XPM+) and HDLC Messaging packs for Extended Distance Capability (EDC) to Remote Switching Centers.

REFERENCE DOCUMENTATION: SLZZ02PM 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02PM EMB2-06-LTC-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 26	ECM 328 11	Introduce NTZZ02PM (EC#024-90441).
94 05 20	ECM 373 27	EC 24-92162 adds one P0749586 for each NTMX71AA.
94 07 31	ECM 373 28	Change stocklist to include packfill NT6X02MC rather than its components.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The LTC+ Module with EDC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC Common CP	NT6X02MC		1	X,X+14		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Time Switch CP	NT6X44AA		2	X,X+14	14	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Desig. Strip (NT6X02MC)	P0708172		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
EDC Messaging Pack	NTMX76AA		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NTMX76AA)	P0744109		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02PM is ordered, these items are provided.
- AP-01 2) This PEC is always provided on the NT6X02MC LTC Common CP, and is shown here for completeness.

LTC+ MODULE WITH EDC AND ADSI/SCWID

PEC CODE: NTZZ02PN

CPC CODE: B0248531

| RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: LTC+ w/EDC and ADSI/SCWID

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an LTC Module equipped with the increased capacity Unified Processor (XPM+) and HDLC Messaging packs for Extended Distance Capability (EDC) with ADSI/SCWID for remote Switching Centers.

REFERENCE DOCUMENTATION: SLZZ02PN 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ02PN EMB2-06-LTC-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 03 11	ECM 714 02	Introduce NTZZ02PN (EC#024-97290).

The LTC+ MODULE WITH EDC AND ADSI/SCWID is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC Common CP	NT6X02MC		1	X,X+14		AP
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Time Switch CP	NT6X44AA		2	X,X+14	14	AP-01
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Desig. Strip (NT6X02MC)	P0708172		2	X,X+14		AP-01
Filler faceplates	NT0X50AA		8	X,X+14	8,9, 10,11	AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP
EDC Messaging Pack	NTMX76AB		2	X,X+14	18	AP
Terminator Card	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Power Converter	NT2X70AF		2	X,X+14	25	AP
Desig. label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Desig. label (NTMX76AB)	P0857783		2	X,X+14	18	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02PN is ordered, these items are provided.
- AP-01 2) This PEC is always provided on the NT6X02MC LTC Common CP, and is shown here for completeness.

LINE TRUNK CONTROLLER COMMON CP

PEC CODE: NTZZ02PJ

CPC CODE: B0241771

RATING: STD

REPLACES: NTZZ02PH

REPLACED BY: None

ABBREVIATION NAME: LTC

ENGINEERING DESCRIPTION: The NTZZ02PJ contains the necessary circuit packfill for one XPM PLUS Line Trunk Controller module equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ02PJ 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ02PJ EMB2-06-LTC-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 28	ECM 373 33	Introduce the NTZZ02PJ Building Block.
95 03 29	ECM 373 38	EC 024-93969 replaces NT2X70AE with NT2X70AF.

The LINE TRUNK CONTROLLER COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC Common CP	NT6X02MC		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02MC	P0708172		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02MC	P0708172		1	X		AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02PJ is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02MC LTC Common CP, and is shown here for completeness.

ISDN LINE TRUNK CONTROLLER COMMON CP

PEC CODE: NTZZ17QS

CPC CODE: B0241780

RATING: STD

REPLACES: NTZZ17QR

REPLACED BY: None

ABBREVIATION NAME: LTCI+

ENGINEERING DESCRIPTION: The NTZZ17QS contains the necessary circuit packfill for one ISDN XPM PLUS Line Trunk Controller module equipped with NT6X69AD Message Protocol and Tone CPS for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ17QS 00 03
NTZZ17QS REL 03

MARKETS: Applicable markets:

Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17QS EMB2-06-LTC-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 28	ECM 373 33	Introduce the NTZZ17QS Building Block.
95 04 12	ECM 373 39	Update BB with NT2X70AF per EC#024-93972.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892 remove reference to filler panel in CP position 17 (this position s/b provisionable).
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN LINE TRUNK CONTROLLER COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ17QS is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ENHANCED LINE TRUNK CONTROLLER ISDN (LTCI)

PEC CODE: NTZZ17GL

CPC CODE: B0247687

| RATING: MD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: LTCI+

ENGINEERING DESCRIPTION: The NTZZ17GL contains the necessary circuit packfill for one ISDN XPM PLUS Line Trunk Controller module equipped with NT6X69AD Message Protocol and Tone CPS for BCS-36+ and beyond. This BB also contains NTAX74AA MCP - MCS Cellular Processor Making the product "Enhanced". The NTAX74AA is not compatible with the NT7X05AA.

REFERENCE DOCUMENTATION: SLZZ17GL 00 01

MARKETS: Applicable markets:

Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17GL EMB2-06-LTC8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 09 20	ECM 616 44	Introduce the NTZZ17GL Building Block with the NTAX74AA Processor.(w/6X69AD)
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17)
97 08 26	ECM 714 06	This BB is MD'd based on EC 024-98354 which eliminates provisioning of the NTAX74AA on the LTCI.

The ENHANCED LINE TRUNK CONTROLLER ISDN (LTCI) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
MCP-MCS Cellular Processor	NTAX74AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
MCP-MCS Cellular Processor	NTAX74AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP01
Desig. Label for NTAX74AA	P0800860		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP01
Desig. Label for NTAX74AA	P0800860		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ17GL is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN XPM PLUS LTC

PEC CODE: NTZZ17QM

CPC CODE: B0238731

RATING: STD

REPLACES: NTZZ17QA

REPLACED BY: None

ABBREVIATION NAME: LTCI+

ENGINEERING DESCRIPTION: The NTZZ17QM contains the necessary circuit packfill for an ISDN XPM PLUS Line Trunk Controller.

REFERENCE DOCUMENTATION: SLZZ17QM 00 04
NTZZ17QM REL 04MARKETS: Applicable markets:
Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17QM EMB2-06-LTP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 12	ECM 616 12	Introduce the NTZZ17QM for ISDN XPM PLUS Line Trunk Controller.
93 12 06	ECM 616 17	Change quantity of AP01 NT0X50AA to match SL6X02NA issue 03
94 07 31	ECM 373 28	EC 24-92162 adds one P0749586 for each NTMX71AA.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 04 04	ECM 616 33	Correct Market.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892 remove reference to filler panbel in CP position 17 (this position s/b provisionable).
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN XPM Plus LTC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ17QM is ordered, these items are provided.
- AP-01 2) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN XPM LTC

PEC CODE: NTZZ17QA

CPC CODE: B0238728

RATING: MD

REPLACES: None

REPLACED BY: NTZZ17QM

ABBREVIATION NAME: CPCI

ENGINEERING DESCRIPTION: The NTZZ17QA contains the necessary circuit packfills for ISDN XPM Line Trunk Controller applications on the NT6X01AD frame.

REFERENCE DOCUMENTATION: SLZZ17QA 00 01

MARKETS: Applicable markets:

Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17QA EMB2-06-LTX CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 12	ECM 616 12	Introduce the NTZZ17QA for ISDN XPM Line Trunk Controller.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 04 04	ECM 616 33	Correct Market.
96 11 22	ECM 616 45	Per EC 024-96589 MD this BB as the NTBX01BA will not work with the MP processors.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17).

The ISDN XPM LTC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01AB		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01AB		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01AB	P0735418		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NTBX01AB	P0735418		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on NT6X01AD in shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17QA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

MESSAGE PROTOCOL AND TONE CIRCUITS FOR XPM

PEC CODE: NTZZ02RA

CPC CODE: B0242313

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02RA is the Building Block which provides two NT6X69AC Circuit Packs, with Labels, to provide Message Protocol and Tones for Enhanced Peripheral Controller Modules (XPM).

REFERENCE DOCUMENTATION: SLZZ02RA 00 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NTZZ02RA EMB2-06-MPT-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 01 31	ECM 373 35	Introduce NTZZ02RA.
96 03 01	ECM 678 25	SR RR61184-Change mounting location to reference frame/cabinet EMSs since NT6X69AC mounts in different slots & shelves on those frame/cabinets.

The Message Protocol and Tone Circuits for XPM is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Message Protocol and Tone CP	NT6X69AC		2	X,X+14	YY	AP
Label for NT6X69AC	P0710476		2	X,X+14	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For shelf and slot mounting information, refer to associated frame or cabinet Engineering Manual Sections.

RULES:

- AP 1) When PEC NTZZ02RA is ordered, these items are provided.

MESSAGE PROTOCOL AND TONE CIRCUITS FOR ADSI/SCWID

PEC CODE: NTZZ02RB

CPC CODE: B0242209

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02RB is the Building Block which provides two NT6X69AD Circuit Packs, with Labels, to provide Message Protocol and Tones for Enhanced Peripheral Controller Modules (XPM). The NT6X69AD Circuit Packs are required to support the Analog Display Services Interface (ADSI) and Spontaneous Call Waiting ID (SCWID) features available with BCS-36+.

REFERENCE DOCUMENTATION: SLZZ02RB 00 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NTZZ02RB EMB2-06-MPT-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 01 31	ECM 373 35	Introduce NTZZ02RB.
96 03 01	ECM 678 25	SR RR61184-Change mounting location to reference frame/cabinet EMSs since NT6X69AC mounts in different slots & shelves on those frame/cabinets.

The Message Protocol and Tone Circuits for ADSI/SCWID is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Message Protocol and Tone CP	NT6X69AD		2	X,X+14	YY	AP
Label for NT6X69AD	P0800014		2	X,X+14	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For shelf and slot mounting information, refer to associated frame or cabinet Engineering Manual Sections.

RULES:

- AP 1) When PEC NTZZ02RB is ordered, these items are provided.

MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC

PEC CODE: NTZZ02RC

CPC CODE: B0242210

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02RC is the Building Block which provides two NTMX76AA Circuit Packs, with Labels, to provide Message Protocol and Tones for Enhanced Peripheral Controller Modules (XPM) using HDLC messaging.

REFERENCE DOCUMENTATION: SLZZ02RC 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: NTI: Darrell Deeds Dept. 3471 (PPK)

NTZZ02RC EMB2-06-MPT-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 01 31	ECM 373 35	Introduce NTZZ02RC.

The Message Protocol and Tone Circuits, HDLC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Message Protocol and Tone CP	NTMX76AA		2	X,X+14	18	AP
Label for NTMX76AA	P0744109		2	X,X+14	18	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02RC is ordered, these items are provided.

MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC

PEC CODE: NTZZ02RD

CPC CODE: B0248533

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02RC is the Building Block which provides two NTMX76AB Circuit Packs, with Labels, to provide Message Protocol and Tones for Enhanced Peripheral Controller Modules (XPM) using HDLC messaging with ADSI/SCWID capabilities.

REFERENCE DOCUMENTATION: SLZZ02RD 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ02RD EMB2-06-MPT-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 03 11	ECM 714 02	Introduce NTZZ02RD (024-97290).
97 04 23	ECM 714 04	Correct CPC# on cover sheet (per SR RR73681).

The MESSAGE PROTOCOL AND TONE CIRCUITS, HDLC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Message Protocol and Tone CP	NTMX76AB		2	X,X+14	18	AP
Label for NTMX76AB	P0857783		2	X,X+14	18	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02RD is ordered, these items are provided.

CPM2 SHELF FILLER FACEPLATE KIT

PEC CODE: NTZZ12KJ

CPC CODE: B0243428

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: This Building Block provides filler faceplates for a CPM2 shelf on a CMVI or MVIE which has no CPs provided.

REFERENCE DOCUMENTATION: SLZZ12KJ 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ12KJ EMB2-06-MVI-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 06 22	ECM 576 02	Introduce BB NTZZ12KJ

The CPM2 Shelf Filler Faceplate Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AF		2	XX	1,26	AP
Filler Face Plate	NT0X50AA		23	XX	3-25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX = 34 for CMVI and 44 for MVIE

RULES:

- AP 1) When PEC NTZZ12KJ is ordered, these items are provided.

16 DS30 NETWORK INTERFACES

NTZZ02GA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02GA Module contains the circuit packs required for DS30 interface to the network.

REFERENCE DOCUMENTATION: SLZZ02GA 00 01
NTZZ02GA REL 01

The 16 DS30 Network Interfaces is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30 Network Interface CP	NT6X40AC		1	X+14	22	AP
DS30 Network Interface CP	NT6X40AC		1	X	22	AP
Desig Label (NT6X40AC)	P0695397		1	X+14	22	AP
Desig Label (NT6X40AC)	P0695397		1	X	22	AP

Note - X = Shelf Position 18 or 51.

RULES:

AP 1) When PEC NTZZ02GA is ordered, these items are provided.

16 DS30 NETWORK INTERFACES

PEC CODE: NTZZ02GC

CPC CODE: B0246276

RATING: Standard

REPLACES: NTZZ02GA

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

| ENGINEERING DESCRIPTION: The NTZZ02GC Module contains the circuit packs required for DS30 interface to the network.

REFERENCE DOCUMENTATION: SLZZ02GC 00 01
NTZZ02GC REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ02GC EMB2-06-NIF-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 04 26	ECM 373 45	EC 024-95240- Introduces NT6X40AD to replace NT6X40AC. This BB is created to support the new DS30.

The 16 DS30 Network Interfaces is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30 Network Interface CP	NT6X40AD		1	X+14	22	AP
DS30 Network Interface CP	NT6X40AD		1	X	22	AP
Desig Label (NT6X40AD)	P0834806		1	X+14	22	AP
Desig Label (NT6X40AD)	P0834806		1	X	22	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Please refer to the EMS for the frame or cabinet which calls for NTZZ02GC for the applicable value of X for the shelf position and Y for the circuit pack slot.

Typically, shelf positions are as follows:

- In cabinets
 - Lower module X = 05 (shelf positions 05 and 19) or
 - Upper module X = 33 (shelf positions 33 and 47), or
- In Frames:
 - Lower module X = 18 (shelf positions 18 and 32) or
 - Upper module X = 51 (shelf positions 51 and 65)

RULES:

AP 1) When PEC NTZZ02GC is ordered, these items are provided.

4 DS30 NETWORK INTERFACES

NTZZ02AA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02AA Module contains the circuit packs required for DS30 interface to the network.

REFERENCE DOCUMENTATION: SLZZ02AA 00 01
NTZZ02AA REL 01

The 4 DS30 Network Interfaces is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30 Network Interface CP	NT6X40BA		1	X+14	22	AP
DS30 Network Interface CP	NT6X40BA		1	X	22	AP
Desig Label (NT6X40BA)	P0705065		1	X+14	22	AP
Desig Label (NT6X40BA)	P0705065		1	X	22	AP

Note - X = Shelf Position 18 or 51.

RULES:

AP 1) When PEC NTZZ02AA is ordered, these items are provided.

DS512 NETWORK INTERFACE

PEC CODE: NTZZ02HM

CPC CODE: B0238771

RATING: Standard

| REPLACES: NTZZ02HA, NTZZ02HB, NTZZ37CH

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02HM Module contains the circuit packs required for DS512 interface to the Enhanced Network (E-NET).

REFERENCE DOCUMENTATION: SLZZ02HM 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: NTI: Darrell Deeds Dept. 3471 (PPK)

NTZZ02HM EMB2-06-NIF-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 05 07	ECM 373 18	Introduce this Bulding Block code
94 02 01	ECM 644 11	Adapt for more general use.
94 09 01	ECM 373 30	MD NTZZ02HA and NTZZ02HB, replaced by NTZZ02HM.

The DS512 Network Interface is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS512 Network Interface CP	NT6X40FA		1	X+14	Y	AP
DS512 Paddle Board	NT6X40GA		1	X+14	YR	AP
DS512 Network Interface CP	NT6X40FA		1	X	Y	AP
DS512 Paddle Board	NT6X40GA		1	X	YR	AP
Fiber Cable Kit	NT6X0251		1	X	YR	AP
Desig Label (NT6X40FA)	P0729895		1	X+14	Y	AP
Desig Label (NT6X40FA)	P0729895		1	X	Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Please refer to the EMS for the frame or cabinet which calls for NTZZ02HM for the applicable value of X for the shelf position and Y for the circuit pack slot.

Typically, shelf positions are as follows:

- In cabinets
 - Lower module X = 05 (shelf positions 05 and 19) or
 - Upper module X = 33 (shelf positions 33 and 47), or
- In Frames:
 - Lower module X = 18 (shelf positions 18 and 32) or
 - Upper module X = 51 (shelf positions 51 and 65), and

and the circuit pack slot position is Y = 22 or Y = 23.

RULES:

AP 1) When PEC NTZZ02HM is ordered, these items are provided.

DS512 NETWORK INTERFACE

PEC CODE: NTZZ02HN

CPC CODE: B0246277

RATING: Standard

REPLACES: NTZZ02HM

REPLACED BY: None

ABBREVIATION NAME: N/A

| ENGINEERING DESCRIPTION: The NTZZ02HN Module contains the circuit packs required for DS512 interface to the Enhanced Network (E-NET).

REFERENCE DOCUMENTATION: SLZZ02HN 00 01
NTZZ02HN REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ02HN EMB2-06-NIF-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 04 26	ECM 373 45	EC 024-95240- Introduces NT6X40FB to replace NT6X40FA. This BB is created to support the new DS512.

The DS512 Network Interface is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS512 Network Interface CP	NT6X40FB		1	X+14	Y	AP
DS512 Paddle Board	NT6X40GA		1	X+14	YR	AP
DS512 Network Interface CP	NT6X40FB		1	X	Y	AP
DS512 Paddle Board	NT6X40GA		1	X	YR	AP
Fiber Cable Kit	NT6X0251		1	X	YR	AP
Desig Label (NT6X40FB)	P0834807		1	X+14	Y	AP
Desig Label (NT6X40FB)	P0834807		1	X	Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Please refer to the EMS for the frame or cabinet which calls for NTZZ02HN for the applicable value of X for the shelf position and Y for the circuit pack slot.

Typically, shelf positions are as follows:

- In cabinets
 - Lower module X = 05 (shelf positions 05 and 19) or
 - Upper module X = 33 (shelf positions 33 and 47), or
- In Frames:
 - Lower module X = 18 (shelf positions 18 and 32) or
 - Upper module X = 51 (shelf positions 51 and 65)

RULES:

AP 1) When PEC NTZZ02HN is ordered, these items are provided.

RING/PAD CIRCUITS

PEC CODE: NTZZ02SA

CPC CODE: B0242211

| RATING: MD

REPLACES: None

| REPLACED BY: NTZZ02SB

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02SA is the Building Block which provides two NT6X80AA Circuit Packs, with Labels, to provide Ring/Pad Circuits for SMS, SMU and SMA Peripheral Controller Modules.

REFERENCE DOCUMENTATION: SLZZ02SA 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ02SA EMB2-06-RPC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 01 31 96 11 22	ECM 373 35 ECM 616 45	Introduce NTZZ02SA. Per EC 24-96637, NT6X80AA replaced by NT6X80BB, which is covered in NTZZ02SB; therefore, MD NTZZ02SA.

The Ring/Pad Circuits is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ring/Pad CP	NT6X80AA		2	X,X+14	19	AP
Label for NT6X80AA	P0666355		2	X,X+14	19	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02SA is ordered, these items are provided.

RING/PAD CIRCUITS, FREQUENCY SELECTIVE RINGING

PEC CODE: NTZZ02SB

CPC CODE: B0242212

RATING: Standard

| REPLACES: NTZZ02SA

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02SB is the Building Block which provides two NT6X80BB Circuit Packs, with Labels, to provide Ring/Pad Circuits for SMS, SMU and SMA Peripheral Controller Modules, with enhancements to support Frequency Selective Ringing.

REFERENCE DOCUMENTATION: SLZZ02SB 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ02SB EMB2-06-RPC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 01 31 96 11 22	ECM 373 35 ECM 616 45	Introduce NTZZ02SB. Per EC 24-96637, NTZZ02SB replaces NTZZ02SA.

The Ring/Pad Circuits, Frequency Selective Ringing is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ring/Pad CP	NT6X80BB		2	X,X+14	19	AP
Label for NT6X80BB	P0800015		2	X,X+14	19	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ02SB is ordered, these items are provided.

SMA2/ESMA COMMON CP PACKFILL
ADSI/SCWID

PEC CODE: NTZZ03SY

CPC CODE: B0244661

RATING: STD

| REPLACES: NTZZ03SX, NTZZ03SZ

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: This Building Block contains common circuit packs for the CPM2 Shelf which is part of an SMA2/ESMA Module that mounts on CMVI and MVIE.

An office using this building block containing the NTAX74AA CP must have the XPM06 ESMA software load.

| This BB is used in offices requiring ADSI/SCWID functionality.

REFERENCE DOCUMENTATION: SLZZ03SY REL 03

MARKETS: Applicable markets:

US
Canada
CALA

| ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

| MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03SY EMB2-06-SMA-18 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 07	ECM 576 05	Introduce NTZZ03SY.
96 01 15	ECM 576 06	Change rating to STD.
96 03 29	ECM 576 07	Update per EC#024-96835 to change NTMX72AA to NTMX72AB. (Release Level changes to 02)
96 08 02	ECM 576 08	Update per EC#024-96835 to introduce NTMX76CA and label. Add label for NTMX72AB per MS drawing. (Release Level changes to 03)
96 08 19	ECM 576 09	Update description to reference new BB EMS NTZZ03SZ.
97 05 23	ECM 576 12	Show that NTZZ03SY replaces NTZZ03SZ.

The SMA2/ESMA COMMON CP PACKFILL ADSI/SCWID is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NTMX72AB		2	XX	01,26	AP
Des. Label NTMX72AB	P0804792		2	XX	01,26	AP
Enhanced Processor	NTAX74AA		2	XX	03,25	AP
Des. Label NTAX74AA	P0800860		2	XX	03,25	AP
EISP	NTBX01BA		2	XX	04,24	AP
Des. Label NTBX01BA	P0713794		2	XX	04,24	AP
MSG and CSM CP	NTMX76CA		2	XX	08,20	AP
Des. Label NTMX76CA	P0850394		2	XX	08,20	AP
Enhanced Matrix CP	NTMX75BA		2	XX	10,18	AP
Signaling Processor	NTMX73BA		2	XX	11,17	AP
Filler Faceplate	NT0X50AA		2	XX	13,15	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ03SX	MD	NTZZ03SY

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX = 6,34 for CMVI and 16,44 for MVIE.

RULES:

- AP 1) When PEC NTZZ03SY is ordered, these items are provided.

SMA2/ESMA COMMON CP PACKFILL
ADSI/SCWID

PEC CODE: NTZZ03SF

CPC CODE: B0247958

RATING: STD

| REPLACES: NTZZ03SY until NTMX72AB is available,
NTZZ03SG

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: This Building Block contains common circuit
packs for the CPM2 Shelf which is part of an
SMA2/ESMA Module that mounts on CMVI and
MVIE.An office using this building block contain-
ing the NTAX74AA CP must have the XPM06 ESMA
software load.This BB is used in offices requiring
ADSI/SCWID functionality. This BB should be
provisioned until the NTZZ03SY becomes
available (when the NTMX72AB card is avail-
able, the NTZZ03SY will be available). See
the EMSs NTQX90AA and NTMX90BA for more de-
tails.

REFERENCE DOCUMENTATION: SLZZ03SF REL 01

MARKETS: Applicable markets:

US
Canada
CALA

| ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

| MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03SF EMB2-06-SMA-25 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 10 04	ECM 576 11	Introduce NTZZ03SF. This bb to be ordered instead of NTZZ03SY until NTMX72AB is available.
97 05 23	ECM 576 12	Show that NTZZ03SF replaces NTZZ03SG. Modify engineering description per MD of NTZZ03SG.

The SMA2/ESMA COMMON CP PACKFILL ADSI/SCWID is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NTMX72AA		2	XX	01,26	AP
Enhanced Processor	NTAX74AA		2	XX	03,25	AP
Des. Label NTAX74AA	P0800860		2	XX	03,25	AP
EISP	NTBX01BA		2	XX	04,24	AP
Des. Label NTBX01BA	P0713794		2	XX	04,24	AP
MSG and CSM CP	NTMX76CA		2	XX	08,20	AP
Des. Label NTMX76CA	P0850394		2	XX	08,20	AP
Enhanced Matrix CP	NTMX75BA		2	XX	10,18	AP
Signaling Processor	NTMX73BA		2	XX	11,17	AP
Filler Faceplate	NT0X50AA		2	XX	13,15	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position XX = 6,34 for CMVI and 16,44 for MVIE.

RULES:

- AP 1) When PEC NTZZ03SF is ordered, these items are provided.

SUBSCRIBER MODULE FOR SLC-96

PEC CODE: NTZZ03BG

CPC CODE: B0242028

RATING: Standard

REPLACES: NTZZ03BB

REPLACED BY: None

ABBREVIATION NAME: SMS

ENGINEERING DESCRIPTION: The NTZZ03BG is the Building Block peripheral controller module for direct digital interface to the SLC-96.

REFERENCE DOCUMENTATION: SLZZ03BG 00 04
NTZZ03BG REL 04

MARKETS: Applicable markets:

US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03BG EMB2-06-SMS-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 11 29	ECM 328 17	Introduce BB NTZZ03BG.
95 04 04	ECM 328 19	Change BB per EC#024-93972 with new packfill.
95 05 16	ECM 328 21	Change BB per EC#024-94037 with new packfill.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02DV. Also, shows NT6X86AA as MD and replaced by NT6X86AB.

The Subscriber Module for SLC-96 is comprised of the following:

EQUIPMENT		PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMS	Common CP	NT6X02DV		1	X		AP
	XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
	Master Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
	Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
	A-Bit Message Card CP	NT6X86AB		1	X+14	13	AP
	Time Switch CP	NT6X44AA		1	X+14	14	AP
	CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
	SMU Pad/Ring CP	NT6X80BB		1	X+14	19	AP
	Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
	Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
	Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
	Filler Face Plate 0.875	NT0X50AA		5	X+14	6,7,9, 15,23	AP
	Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP01
	XPM Processor CP	NT6X45BA		2	X	8,12	AP
	Master Proc Memory Plus CP	NT6X47AC		1	X	10	AP
	Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
	A-Bit Message Card CP	NT6X86AB		1	X	13	AP
	Time Switch CP	NT6X44AA		1	X	14	AP
	CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
	SMU Pad/Ring CP	NT6X80BB		1	X	19	AP
	Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
	Speech Bus Formatter	NT6X41AA		1	X	21	AP01
	Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP
	Filler Face Plate 0.875	NT0X50AA		5	X	6,7,9, 15,23	AP
	Filler Face Plate 0.875	NT0X50AA		1	X	24	AP01
	Desig. Strip (NT6X02DV)	P0833166		1	X+14		AP01
	Desig. Label for NT6X45BA	P0665152		2	X+14	8,12	AP
	Desig. Label for NT6X47AC	P0711663		1	X+14	10	AP
	Desig. Label for NT6X46BB	P0711664		1	X+14	11	AP
	Desig. Label for NT6X86AB	P0724376		1	X+14	13	AP
	Desig. Label for NT6X69AC	P0710476		1	X+14	18	AP
	Desig. Label for NT6X80BB	P0800015		1	X+14	19	AP
	Desig. Label for NT6X44AA	P0698316		1	X+14	14	AP
	Desig. label (NT2X70AF)	P0809960		2	X+14	25	AP
	Desig. Strip (NT6X02DV)	P0833166		1	X		AP01
	Desig. Label for NT6X45BA	P0665152		2	X	8,12	AP
	Desig. Label for NT6X47AC	P0711663		1	X	10	AP
	Desig. Label for NT6X46BB	P0711664		1	X	11	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NT6X86AB	P0724376		1	X	13	AP
Desig. Label for NT6X69AC	P0710476		1	X	18	AP
Desig. Label for NT6X80BB	P0800015		1	X	19	AP
Desig. Label for NT6X44AA	P0698316		1	X	14	AP
Desig. label (NT2X70AF)	P0809960		2	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ03BG is ordered, these items are provided.
- | AP-01 1) This PEC is always provided on the NT6X02DV SMS CP, and shown here for completeness.

SUBSCRIBER CARRIER MODULE-100S REMOTE (SMS-R)

PEC CODE: NTZZ03EF

CPC CODE: B0242029

RATING: Standard

REPLACES: NTZZ03EA

REPLACED BY: None

ABBREVIATION NAME: SMS-R

ENGINEERING DESCRIPTION: The NTZZ03EF is the Building Block peripheral controller module for direct digital interface from the RSC to the SLC-96.

REFERENCE DOCUMENTATION: SLZZ03EF 00 05
NTZZ03EF REL 05

MARKETS: Applicable markets:

US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03EF EMB2-06-SMS-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 11 29	ECM 454 09	Introduce BB NTZZ03EF.
95 03 29	ECM 454 11	Change packfill per EC#024-93972.
95 05 11	ECM 454 13	Change packfill per EC#024-94037.
96 03 01	ECM 678 25	ET 33099-removes NT6X0205 as a provisionable item on NTZZ47GD since it already exists in NTZZ03ED. As a result, add NT6X0205 to this BB.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02PL. Also, MD NT6X86AA and replace with NT6X86AB in this BB.

The Subscriber Carrier Module-100S Remote (SMS-R) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMS-R Common CP	NT6X02PL		1	X		AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Master Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
A-Bit Message Card CP	NT6X86AB		1	X+14	13	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X+14	19	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
SMS-R DS-30A C-Side I/F CP	NT8X18BA		1	X+14	22	AP
Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		7	X+14	6,7,9, 15-17, 23	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Master Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
A-Bit Message Card CP	NT6X86AB		1	X	13	AP
Time Switch CP	NT6X44AA		1	X	14	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X	19	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
SMS-R DS-30A C-Side I/F CP	NT8X18BA		1	X	22	AP
Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		7	X	6,7,9, 15-17, 23	AP
SMS-R Wiring Option Kit	NT6X0205		1	X		AP
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP01
Designation Strip	P0833750		1	X+14		AP01
Desig. Label for NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label for NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label for NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label for NT6X86AB	P0724376		1	X+14	13	AP
Desig. Label for NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label for NT6X80BB	P0800015		1	X+14	19	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NT8X18BA	P0712505		1	X+14	22	AP
Design. Label (NT2X70AF)	P0809960		1	X+14	25	AP
Designation Strip	P0833750		1	X		AP01
Desig. Label for NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label for NT6X47AC	P0711663		1	X	10	AP
Desig. Label for NT6X46BB	P0711664		1	X	11	AP
Desig. Label for NT6X86AB	P0724376		1	X	13	AP
Desig. Label for NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NT6X69AC	P0710476		1	X	18	AP
Desig. Label for NT6X80BB	P0800015		1	X	19	AP
Desig. Label for NT8X18BA	P0712505		1	X	22	AP
Design. Label (NT2X70AF)	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X= 33 for the other.

RULES:

- AP 1) When PEC NTZZ03EF is ordered, these items are provided.
- | AP-01 1) This PEC is always provided on the NT6X02PL SMS-R CP, an
shown here for completeness.

SMS+ COMMON CP (ON NT6X01AA)

PEC CODE: NTZZ03BH

CPC CODE: B0242084

RATING: Standard

REPLACES: NTZZ03BF

REPLACED BY: Not Applicable

ABBREVIATION NAME: SMS+

ENGINEERING DESCRIPTION: The NTZZ03BH SMS packfill provides the common circuit packs for one module. This Building Block provides a Unified Processor configuration and backplane wiring upgrade for application on an unequipped module on an existing NT6X01AA frame. The appropriate NT6X80-- packs must be provisioned seperately when this Building Block is applied.

REFERENCE DOCUMENTATION: SLZZ03BH 00 04
NTZZ03BH REL 04

MARKETS: Applicable markets:

US
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03BH EMB2-06-SMS-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 12 12	ECM 678 17	Introduce NTZZ03BH Building Block.
95 04 04	ECM 328 19	Change BB with new packfill per EC#024-93972.
95 05 16	ECM 328 21	Update BB with new packfill per EC#024-94037.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02DV.

The SMS+ COMMON CP (ON NT6X01AA) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMS Common CP Kit	NT6X02DV		1	X		AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP01
Filler faceplate	NT0X50AA		2	X,X+14	24	AP01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833166		2	X,X+14		AP01
Filler Faceplate	NT0X50AA		12	X,X+14	6-11,	AP
A-Bit Message Card CP	NT6X86AB		2	X,X+14	13	AP
Messaging & Tone CP	NT6X69AC		2	X,X+14	18	AP
Design. Label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Design. Label (NT6X44AA)	P0698316		2	X,X+14	14	AP
Desig. label (NT2X70AF)	P0809960		2	X,X+14	25	AP
XPM+ Packfill Kit	NT6X02XG		1	X,X+14		AP
Unified Processor CP	NTMX77AA		2	X,X+14	12	AP02
Design. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP02
XPM+ Terminator PB	NTMX71AA		2	X,X+14	19R	AP02
Wiring Paddleboard Kit	NTMX70AA		1	X,X+14		AP02

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

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A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) Shelf position X can be either 18 or 51.
- 2) Items marked AP01 are included in NT6X02DV and are shown for completeness.
- 3) Items marked AP02 are included in NT6X02XG and are shown for completeness.

RULES:

- AP 1) When PEC NTZZ03BH is ordered, these items are provided.

SUBSCRIBER MODULE SLC-96 COMMON CP

PEC CODE: NTZZ03BS

CPC CODE: B0241773

RATING: STD

REPLACES: NTZZ03BR

REPLACED BY: None

ABBREVIATION NAME: SMS

ENGINEERING DESCRIPTION: The NTZZ03BS contains the necessary circuit packfill for one XPM PLUS Subscriber Module for SLC-96, equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ03BS 00 03
NTZZ03BS REL 03

MARKETS: Applicable markets:

US
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03BS EMB2-06-SMS-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 28	ECM 373 33	Introduce the NTZZ03BS Building Block.
95 04 04	ECM 328 19	Change BB per EC#024-93972 with new packfill.
95 05 16	ECM 328 21	Update BB per EC#024-94037 with new packfill.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02DV.

The SUBSCRIBER MODULE SLC-96 COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMS Common CP	NT6X02DV		1	X		AP
Filler Face Plate 0.875	NT0X50AA		6	X+14	6, 7, 8 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
A-Bit Message CP	NT6X86AB		1	X+14	13	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		6	X	6, 7, 8 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
A-Bit Message CP	NT6X86AB		1	X	13	AP
Time Switch CP	NT6X44AA		1	X	14	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02DV	P0833166		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. label (NT2X70AF)	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02DV	P0833166		1	X		AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. label (NT2X70AF)	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

AP 1) When PEC NTZZ03BS is ordered, these items are provided.

| AP-01 1) This PEC is always provided on the NT6X02DV SMS Common CP, and is shown here for completeness.

REMOTE SUBSCRIBER MODULE FOR SLC-96 W/XPM+

PEC CODE: NTZZ03ED

CPC CODE: B0224984

RATING: Standard

REPLACES: NTZZ03EB

REPLACED BY: Not Applicable

ABBREVIATION NAME: SMS-R+

ENGINEERING DESCRIPTION: This Building Block provides the packfill for an SMS-R Module equipped with the increased capacity Unified Processor (XPM+). The appropriate NT6X80-- packs must be provisioned seperately when this Building Block is applied.

REFERENCE DOCUMENTATION: SLZZ03ED 00 04
NTZZ03ED REL 04

MARKETS: Applicable markets:

US
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03ED EMB2-06-SMSR-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 06 30	ECM 678 11	Introduce NTZZ03ED Building Block.
94 07 31	ECM 373 28	Add cabinet module locations.
95 03 29	ECM 454 11	Change packfill per EC#024-93972.
95 05 11	ECM 454 13	Change packfill per EC#024-94037.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02PL.

The REMOTE SUBSCRIBER MODULE FOR SLC-96 W/XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMS-R Common CP Kit	NT6X02PL		1	X		AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP01
Filler faceplate	NT0X50AA		2	X,X+14	24	AP01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833750		2	X,X+14		AP01
Filler Faceplate	NT0X50AA		12	X,X+14	6, 7, 8, 9, 10, 11	AP
Unified Processor CP	NTMX77AA		2	X,X+14	12	AP
A-Bit Message Card CP	NT6X86AB		2	X,X+14	13	AP
Messaging & Tone CP	NT6X69AC		2	X,X+14	18	AP
XPM+ Terminator PB	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
DS30 C-side Interface	NT8X18BA		2	X,X+14	22	AP
SMS-R Product Change Kit	NT6X0205		1	X		AP
Design. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Design. Label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Design. Label (NT8X18BA)	P0712505		2	X,X+14	22	AP
Design. Label (NT6X44AA)	P0698316		2	X,X+14	14	AP
Design. Label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ03ED is ordered, these items are provided.
- | AP-01 2) This PEC is always provided on the NT6X02PL SMS-R Common CP, and is shown here for completeness.

SMS-R+ COMMON CP (ON NT6X01AA)

PEC CODE: NTZZ03EG

CPC CODE: B0242086

RATING: Standard

REPLACES: NTZZ03EE

REPLACED BY: Not Applicable

ABBREVIATION NAME: SMS-R+

ENGINEERING DESCRIPTION: The NTZZ03EG SMS-R packfill provides the common circuit packs for one module. This Building Block provides a Unified Processor (XPM+) configuration and backplane wiring for application on an unequipped module in an existing NT6X01AA frame. The appropriate NT6X80-- packs must be provisioned seperately when this Building Block is applied.

REFERENCE DOCUMENTATION: SLZZ03EG 00 03
NTZZ03EG REL 03

MARKETS: Applicable markets:

US
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03EG EMB2-06-SMSR-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 12 12	ECM 678 17	Introduce NTZZ03EG Building Block.
95 04 14	ECM 454 12	Update BB with new packfill per EC#024-93972.
95 05 11	ECM 454 13	Change packfill per EC#024-94037.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02PL.

The SMS-R+ COMMON CP (ON NT6X01AA) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMS-R Common CP Kit	NT6X02PL		1	X		AP
Time Switch CP	NT6X44AA		2	X,X+14	14	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP01
Filler faceplate	NT0X50AA		2	X,X+14	24	AP01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833750		2	X,X+14		AP01
Filler Faceplate	NT0X50AA		12	X,X+14	6-11,	AP
A-Bit Message Card CP	NT6X86AB		2	X,X+14	13	AP
Messaging & Tone CP	NT6X69AC		2	X,X+14	18	AP
DS30 C-side Interface	NT8X18BA		2	X,X+14	22	AP
SMS-R Product Change Kit	NT6X0205		1	X		AP
Design. Label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Design. Label (NT8X18BA)	P0712505		2	X,X+14	22	AP
Design. Label (NT6X44AA)	P0698316		2	X,X+14	14	AP
Design. Label (NT2X70AF)	P0809960		2	X,X+14	25	AP
XPM+ Packfill Kit	NT6X02XG		1	X		AP
Unified Processor CP	NTMX77AA		2	X,X+14	12	AP02
Design. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP02
XPM+ Terminator PB	NTMX71AA		2	X,X+14	19R	AP02

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position X can be either 18 or 51.
- 2) Items marked AP01 are included in NT6X02PL and are shown for completeness.
- 3) Items marked AP02 are included in NT6X02XG and are shown for completeness.

RULES:

- AP 1) When PEC NTZZ03EG is ordered, these items are provided.

SMUI W/XPM+

PEC CODE: NTZZ03RC

CPC CODE: B0248866

| RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: SMUI+

ENGINEERING DESCRIPTION: This building block provides the packfill for an SMUI Module equipped with the increased capacity Unified Processer (XPM+) and the NT6X69AC (Message Protocol and Tone CP).

REFERENCE DOCUMENTATION: SLZZ03RC 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03RC EMB2-06-SMU-12 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 04 23	ECM 714 04	Creation of this building block to support introduction of new packfill, NT6X02CX, per ECD 024-97732.

The SMUI W/XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMUI Common CP	NT6X02CX		1			AP
Filler Face Plate 0.875	NT0X50AA		6	X+14	6, 7, 8, 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Enhanced ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X+14	19	AP
Terminator Pack	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
Filler Face Plate 0.875	NT0X50AA		1	X+14	23	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		6	X	6, 7, 8, 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Enhanced ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X	19	AP
Terminator Pack	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
Filler Face Plate 0.875	NT0X50AA		1	X	23	AP
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip (Therm. Print)	P0800766		1	X+14		AP01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label for NT0X50AA	P0578498		3	X+14	8, 10, 11	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label for NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip (Therm. Print)	P0800766		1	X		AP01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label for NT0X50AA	P0578498		3	X	8, 10, 11	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label for NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ03RC is ordered, these items are provided.

SUBSCRIBER MODULE DMS-1U COMMON CP

PEC CODE: NTZZ03DK

CPC CODE: B0241774

RATING: Standard

REPLACES: NTZZ03DJ

REPLACED BY: None

ABBREVIATION NAME: SMU

ENGINEERING DESCRIPTION: The NTZZ03DK contains the necessary circuit packfill for one XPM PLUS Subscriber Module for DMS-1 Urban equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ03DK 00 03
NTZZ03DK REL 03

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03DK EMB2-06-SMU-14 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 09 10	ECM 314 15	Introduce the NTZZ03DK Building Block.
95 03 30	ECM 314 20	Update BB with new packfill per EC#024-93972.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02EU.
96 11 22	ECM 314 23	Per SR RR60487 add note for E911 applications on SMU.

The SUBSCRIBER MODULE DMS-1U COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMU Common CP	NT6X02EU		1			AP
Filler Face Plate 0.875	NT0X50AA		6	X+14	6, 7, 8 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Time Switch CP	NT6X44CA		1	X+14	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
SCM Pad/Ring CP	NT6X80BB		1	X+14	19	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		6	X	6, 7, 8 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Time Switch CP	NT6X44CA		1	X	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
SCM Pad/Ring CP	NT6X80BB		1	X	19	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02EU	P0833750		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT6X80BB	P0800015		1	X+14	19	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02EU	P0833750		1	X	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT6X80BB	P0800015		1	X	19	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.
- 3) SMUs supporting LDTPSAPS (Line Appear on Digital Trunks, Public Service Answering Point) (E911 service) must remain dedicated only to LDTPSAPS to ensure priority service to E911. Due to this consideration, SMUs with LDTs will NOT allow NT6X92BB/BC/EA (UTR/GTR) to be datafilled.

RULES:

AP 1) When PEC NTZZ03DK is ordered, these items are provided.

AP-01 1) This PEC is always provided on the NT6X02EU SMU Common CP, and is shown here for completeness.

SUBSCRIBER MODULE FOR DMS-1 URBAN COMMON CP

PEC CODE: NTZZ03DM

CPC CODE: B0242506

RATING: STD

REPLACES: NTZZ03DA

REPLACED BY: None

ABBREVIATION NAME: SMU

ENGINEERING DESCRIPTION: The Subscriber Module Urban (SMU) is the peripheral controller module for direct digital interface to the DMS-1 Urban (RCU).

NTZZ03DM is required for new offices interfacing ENET.

REFERENCE DOCUMENTATION: SLZZ03DM 00 03
NTZZ03DM REL 03

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03DM EMB2-06-SMU-16 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 02 17	ECM 314 18	Introduce BB NTZZ03DM
95 03 30	ECM 314 20	Update BB with new packfill per EC#024-93972.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02EU.
96 11 22	ECM 314 23	Per SR RR60487 add note for E911 application restrictions on SMU.

The Subscriber Module For DMS-1 Urban Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMU Common CP	NT6X02EU		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Master Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44CA		1	X+14	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X+14	19	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		7	X+14	6-7,9, 15,17, 13,23,	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Master Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44CA		1	X	14	AP-01
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X	19	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		7	X	6-7,9, 15,17, 13,23,	AP
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Desig. Strip (NT6X02EU)	P0833750		2			AP-01
Desig. Label for NT6X45BA	P0665152		4	X,X+14	8,12	AP
Desig. Label for NT6X47AC	P0711663		2	X,X+14	10	AP
Desig. Label for NT6X46BB	P0711664		2	X,X+14	11	AP
Desig. Label for NT6X69AC	P0710476		2	X,X+14	18	AP
Desig. Label for NT6X80BB	P0800015		2	X,X+14	19	AP
Desig. Label for NT2X70AF	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.
- 3) SMUs supporting LDTPSAPS (Line Appear on Digital Trunks, Public Service Answering Point) (E911 service) must remain dedicated only to LDTPSAPS to ensure priority service to E911. Due to this consideration, SMUs with LTDs will NOT allow NT6X92BB/BC/EA (UTR/GTR) to be datafilled.

RULES:

AP 1) When PEC NTZZ03DM is ordered, these items are provided.

AP-01 1) This PEC is always provided on the NT6X02EU SMU Common C and is shown here for completeness.

SMUI W/XPM+

PEC CODE: NTZZ03RL

CPC CODE: B0248865

| RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: SMUI+

ENGINEERING DESCRIPTION: The NTZZ03RL contains the necessary circuit packfill for one ISDN XPM Plus Subscriber module for DMS-1 Urban equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36 and beyond.

REFERENCE DOCUMENTATION: SLZZ03RL 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03RL EMB2-06-SMU-17 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 04 23	ECM 714 04	Creation of this building block to support introduction of new packfill, NT6X02CX, per ECD 024-97732.

The SMUI W/XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMUI Common CP	NT6X02CX		1			AP
Filler Face Plate 0.875	NT0X50AA		6	X+14	6, 7, 8, 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Enhanced ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X+14	19	AP
Terminator Pack	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
Filler Face Plate 0.875	NT0X50AA		1	X+14	23	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		6	X	6, 7, 8, 9, 10, 11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Enhanced ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
SMU Pad/Ring CP	NT6X80BB		1	X	19	AP
Terminator Pack	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
Filler Face Plate 0.875	NT0X50AA		1	X	23	AP
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP01
Power Conv +/-5V & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip (Therm. Print)	P0800766		1	X+14		AP01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label for NT0X50AA	P0578498		3	X+14	8, 10, 11	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label for NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip (Therm. Print)	P0800766		1	X		AP01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label for NT0X50AA	P0578498		3	X	8, 10, 11	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label for NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ03RL is ordered, these items are provided.

SMU+ COMMON CP (ON NT6X01AA)

PEC CODE: NTZZ03DL

CPC CODE: B0242085

RATING: Standard

REPLACES: NTZZ03DF

REPLACED BY: None

ABBREVIATION NAME: SMU+

ENGINEERING DESCRIPTION: The NTZZ03DL SMU packfill provides the common circuit packs for upgrading an unequipped module on an existing NT6X01AA frame. This Building Block includes the Unified Processor, Terminator CP and the wiring instructions needed to upgrade an existing module.

REFERENCE DOCUMENTATION: SLZZ03DL 00 03
NTZZ03DL REL 03

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03DL EMB2-06-SMU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 12 12 95 05 04	ECM 678 17 ECM 678 20	Introduce NTZZ03DL Building Block. Update BB with new packfill per EC#024-93972.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02EU.
96 11 22	ECM 314 23	Per SR RR60487 add note for E911 applications on SMU.

The SMU+ COMMON CP (ON NT6X01AA) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMU Common CP Kit	NT6X02EU		1	X		AP
Time Switch CP	NT6X44CA		2	X,X+14	14	AP01
SCM Pad/Ring Card CP	NT6X80BB		2	X,X+14	19	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP01
Filler faceplate	NT0X50AA		2	X,X+14	24	AP01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833750		2	X,X+14		AP01
Design. Label NT2X70AF	P0809960		2	X,X+14	25	AP
Filler Faceplate	NT0X50AA		14	X,X+14	6-11, 13	AP
Messaging & Tone CP	NT6X69AC		2	X,X+14	18	AP
Design. Label (NT6X69AC)	P0710476		2	X,X+14	18	AP
XPM+ Packfill Kit	NT6X02XG		1	X		AP
Unified Processor	NTMX77AA		2	X,X+14	12	AP02
Desig. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP02
Terminator CP	NTMX71AA		2	X,X+14	19R	AP02

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position X can be either 18 or 51.

- 2) Items marked AP-01 are included in NT6X02EU and are show completeness.
- 3) Items marked AP-02 are included in NT6X02XG and are shown for completeness.
- 4) SMUs supporting LDTPSAPS (Line Appear on Digital Trunks, Public Service Answering Point) (E911 service) must remain dedicated only to LDTPSAPS to ensure priority service to E911. Due to this consideration, SMUs with LDTs will NOT allow NT6X92BB/BC/EA (UTR/GTR) to be datafilled.

RULES:

- AP 1) When PEC NTZZ03DL is ordered, these items are provided.

SUBSCRIBER MODULE FOR DMS-1U WITH XPM+

PEC CODE: NTZZ03DE

CPC CODE: B0241449

RATING: Standard

REPLACES: NTZZ03DB

REPLACED BY: None

ABBREVIATION NAME: SMU+

ENGINEERING DESCRIPTION: This Building Block provides the packfill
for an SMU Module equipped with the in-
creased capacity Unified Processor (XPM+).REFERENCE DOCUMENTATION: SLZZ03DE 00 03
NTZZ03DE REL 03

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ03DE EMB2-06-SMU-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 08 26	ECM 314 14	Introduce NTZZ03DE Building Block.
95 03 30	ECM 314 20	Update BB with new packfill per EC#024-93972.
96 04 26	ECM 373 45	EC 024-95240- Removes NT2X70AF from the packfill stocklist and changes the packfill PEC to NT6X02EU.
96 11 22	ECM 314 23	Per SR RR60487 add note for E911 application on SMU.

The Subscriber Module for DMS-1U with XPM+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SMU Common CP Kit	NT6X02EU		1	X,X+14		AP
Time Switch CP	NT6X44CA		2	X,X+14	14	AP-01
SCM Pad/Ring Card CP	NT6X80BB		2	X,X+14	19	AP
Channel Supervision Msg.	NT6X42AA		2	X,X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		2	X,X+14	21	AP-01
Filler faceplate	NT0X50AA		2	X,X+14	24	AP-01
Power Converter	NT2X70AF		2	X,X+14	25	AP
Designation Strip	P0833750		2	X,X+14		AP-01
Filler Faceplate	NT0X50AA		12	X,X+14	6, 7, 8, 9, 10, 11	AP
Unified Processor CP	NTMX77AA		2	X,X+14	12	AP
Filler Faceplate	NT0X50AA		2	X,X+14	13	AP
Messaging & Tone CP	NT6X69AC		2	X,X+14	18	AP
XPM+ Terminator PB	NTMX71AA		2	X,X+14	19R	AP
Insertion Guide	P0749586		2	X,X+14	19R	AP
Design. Label (NTMX77AA)	P0735417		2	X,X+14	12	AP
Design. Label (NT6X69AC)	P0710476		2	X,X+14	18	AP
Design. Label (NT2X70AF)	P0809960		2	X,X+14	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.
- 3) SMUs supporting LDTPSAPS (Line Appear on Digital Trunks, Public Service Answering Point) (E911 service) must remain dedicated only to LDTPSAPS to ensure priority service to E911. Due to this consideration, SMUs with LDTs will NOT allow NT6X92BB/BC/EA (UTR/GTR) to be datafilled.

RULES:

AP 1) When PEC NTZZ03DE is ordered, these items are provided.

| AP-01 2) This PEC is always provided on the NT6X02EU SMU Common CP, and is shown here for completeness.

UNIFIED PROCESSOR

PEC CODE: NTZZ03AB

CPC CODE: B0244771

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ03AB contains two Unified Processor CPs and their labels. Check the XPM module information for minimum software requirements.

REFERENCE DOCUMENTATION: SLZZ03AB 00 01
NTZZ03AB REL 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ03AB EMB2-06-UP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 676 12	EC 011-21580 Introduces the new NTAX74AA and makes it and the Unified Processor NTMX77AA provisionable to the new packfill NT6X02TJ. This BB is introduced in its first application as a provisionable Proc. to the SMA application.

The UNIFIED PROCESSOR is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Unified Processor	NTMX77AA		2	X,X+14	Y	AP
Desig. Label for NTMX77AA	P0735417		2	X,X+14	Y	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For SMA frame application, X=18 for first module and X=51 for second module.
- 2) For SMA cabinet application, X=05 for first module and X=33 for second module.
- 3) For SMA frame or cabinet application, Y=12 for slot location.

RULES:

- AP 1) When PEC NTZZ03AB is ordered, these items are provided.

ISDN COMMON PERIPHERAL CONTROLLER MOD WITH XPM+ AND DWS

PEC CODE: NTZZ17TM

CPC CODE: B0238881

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: CPCI+/DWS

ENGINEERING DESCRIPTION: This Building Block provides the packfill for a CPCI Module equipped with the increased capacity Unified Processor (XPM+) and support for Dialable Wideband Services (DWS).

REFERENCE DOCUMENTATION: SLZZ17TM 00 05
NTZZ17TM REL 05

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17TM EMB2-06-UPI-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 10 15	ECM 687 01	Introduce NTZZ17TM Building Block to support ISDN XPM Plus and DWS.
93 11 29	ECM 687 02	Adding filler to slot 13 which had been removed from slot 13 stocklist of the NT6X02NA.
94 05 20	ECM 373 27	EC 24-92162 adds one P0749586 for each NTMX71AA.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892 remove filler panel from CP position 17 (this position s/b provisionable).
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+ with DWS.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN Common Peripheral Controller Mod with XPM+ and DWS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	08, 09, 10, 11	AP
Enhanced Time Switch CP	NTAX78AA		1	X+14	14	AP
Enh ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
Unified Processor CP	NTMX77AA		1	X	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	08, 09, 10, 11	AP
Enhanced Time Switch CP	NTAX78AA		1	X	14	AP
Enh ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NTAX78AA	P0737140		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NTAX78AA	P0737140		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

NTZZ17TM

Active Equipment

EMB2-06-UPI-1

ISDN Common Peripheral Controller Mod with XPM+ and DWS Page 3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on the NT6X01AD to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN COMMON PERIPHERAL CONTROLLER MOD WITH XPM+ AND DWS

PEC CODE: NTZZ17TT

CPC CODE: B0244613

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: CPCI+/DWS

ENGINEERING DESCRIPTION: This Building Block provides the packfill for a CPCI Module equipped with the increased capacity Unified Processor (XPM+) and NT6X69AD Message Protocol & Tone CP for BCS-36+ and beyond for Dialable Wideband Services (DWS).

REFERENCE DOCUMENTATION: SLZZ17TT 00 01
NTZZ17TT REL 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17TT EMB2-06-UPI-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 08	ECM 678 24	EC 024-95229- replaces NT6X69AC with NT6X69AD for new production, so the NTZZ17TT BB is being introduced for DTCI+ to have the NT6X69AD.
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892, remove filler panel from CP position 17 (this position s/b provisionable).
97 01 07	ECM 616 46	Correct abbreviation to reflect XPM+ with DWS.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN Common Peripheral Controller Mod with XPM+ and DWS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1	X		AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	08,09, 10,11	AP
Enhanced Time Switch CP	NTAX78AA		1	X+14	14	AP
Enh ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Unified Processor CP	NTMX77AA		1	X	12	AP
Filler Face Plate 0.875	NT0X50AA		4	X	08,09, 10,11	AP
Enhanced Time Switch CP	NTAX78AA		1	X	14	AP
Enh ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NTAX78AA	P0737140		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NTAX78AA	P0737140		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

NTZZ17TT

Active Equipment

EMB2-06-UPI-2

ISDN Common Peripheral Controller Mod with XPM+ and DWS Page 3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on the NT6X01AD to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP and is shown here for completeness.

30 UNIVERSAL TONE RCVR CCTS

PEC CODE: NTZZ02FA

CPC CODE: B0231740

RATING: MD

REPLACES: Not Applicable

| REPLACED BY: NTZZ02FB

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02FA Module contains the circuit packs required for optional universal tone receiver.

This building block is designed to support domestic applications only.

REFERENCE DOCUMENTATION: SLZZ02FA 00 01
NTZZ02FA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

| ISSUE AUTHOR: NTI: Barbara Berkley Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ02FA EMB2-06-UTR-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 07 26	ECM 328 11	Revise for UTR on SMS application
94 10 27	ECM 678 16	Correct slot positions for NTZZ02FA
95 08 04	ECM 492 23	EC: 018-45754 replaces the NT6X92BB with the NT6X92BC.
95 10 06	ECM 492 26	DKG: Clarify that this building block supports domestic applications only. Correct designation label for NT6X92BC to resolve ET 28479.
95 12 01	ECM 492 27	JEL: Remove NT6X92BC's from building block and show NTZZ02FA replacement as NTZZ02FB.
96 11 22	ECM 314 23	Per EC 24-96637 the NT6X92BB is MD'd and replaced by the NT6X92BC. This BB is therefore MD'd, and replaced by NTZZ02FB.

The 30 Universal Tone Rcvr Ccts is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Receiver CP	NT6X92BB		1	X+14	YY	AP
Universal Tone Receiver CP	NT6X92BB		1	X	YY	AP
Desig Label (NT6X92BB)	P0690565		1	X+14	YY	AP
Desig Label (NT6X92BB)	P0690565		1	X	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

X = Shelf Position 18 or 51.

YY = Card position 14 for RSC

YY = Card position 15 or 16 for LGC/LTC/DTC

YY = Card position 15 for LGCI/LTCI/DTCI/SMUI/SMU/SMA

YY = Card position 17 for SMS

RULES:

AP 1) When PEC NTZZ02FA is ordered, these items are provided.

30 UNIVERSAL TONE RCVR CCTS

PEC CODE: NTZZ02FB

CPC CODE: B0236424

RATING: STD

| REPLACES: NTZZ02FA

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02FB contains CP for the Universal
Tone Receiver.REFERENCE DOCUMENTATION: NTZZ02FB 00 01
NTZZ02FB REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ02FB EMB2-06-UTR-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 15	ECM 616 10	Introduce NTZZ02FB
93 07 26	ECM 328 11	Revise for UTR on SMS application
94 10 17	ECM 618 17	Added RSC Card Position note per ECD 24-92938.
94 10 24	ECM 678 15	Added Card Position information
95 12 01	ECM 492 27	No change to building block. Added to MTXD ECM (ECM 492).
96 02 07	ECM 618 24	Made slot position 16 and 14 available for NT6X92BC in NTZZ02FB.
96 11 22	ECM 616 45	Per EC 24-96637, NTZZ02FB now replaces NTZZ02FA, updated "replaces" section accordingly.

The 30 Universal Tone Rcvr Ccts is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Receiver CP	NT6X92BC		1	X+14	YY	AP
Universal Tone Receiver CP	NT6X92BC		1	X	YY	AP
Desig Label (NT6X92BC)	P0737431		1	X+14	YY	AP
Desig Label (NT6X92BC)	P0737431		1	X	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

X = Shelf Position 18 or 51

YY = Card Position 16 or 14 for RSC

YY = Card Position 15 or 16 for LGC/LTC/DTC

YY = Card Position 15 for LGCI/LTCI/DTCI/SMA/SMU/SMUI

YY = Card Position 17 for SMS

RULES:

AP 1) When PEC NTZZ02FB is ordered, these items are provided.

30 UNIVERSAL TONE RCVR CCTS, INTERNATIONAL

PEC CODE: NTZZ41CA

CPC CODE: B0236349

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ41CA contains two Universal Tone Receiver circuit packs for international applications.

REFERENCE DOCUMENTATION: SLZZ41CA 00 01

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Darrell Deeds Dept. 3471 (PPK)

NTZZ41CA EMB2-06-UTR-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 07 21	ECM 644 14	Document issued.

The 30 UNIVERSAL TONE RCVR CCTS, INTERNATIONAL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Receiver CP	NT6X92CA		1	X+14	YY	AP
Universal Tone Receiver CP	NT6X92CA		1	X	YY	AP
Designation Label, NT6X92CA	P0677831		1	X+14	YY	AP
Designation Label, NT6X92CA	P0677831		1	X	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

X = Shelf Postion 18 or 51 for frames.

X = Shelf Postion 5 or 33 for cabinets.

YY = Card Position 8, 9, 11, 15, or 17, depending on module type.

RULES:

AP 1) When PEC NTZZ41CA is ordered, these items are provided.

NT6X92BC UNIVERSAL TONE RECEIVER (RSC-S)

PEC CODE: NTZZ12VB

CPC CODE: B0242515

RATING: Standard

REPLACES: Not Applicable

| REPLACED BY: NTZZ12VC (when available)

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ12VB Module contains a pair of Universal Tone Receivers for use in the RSC-SONET when required. This Building Block can be used for either the first or second UTR pair.

REFERENCE DOCUMENTATION: SLZZ12VB 00 03

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

| MAIN CONTACT: Scott Maggiolo Dept. 3471 (PPK)

NTZZ12VB EMB2-06-UTR-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 02 14 95 07 14	ECM 691 08 ECM 691 11	Introduce NT6X92BC in RSC-S. Changed slot reference from 7,21 to Y,28-Y to allow usage of this BB in slots 6,22. This allows this BB to be used for both the first and second UTR pair.
95 08 29	ECM 691 12	Changed shelf location from 06 to X to allow mounting in other positions when used in different products.
96 03 29	ECM 586 03	Add REPBY pec NTZZ12VC.

The NT6X92BC Universal Tone Receiver (RSC-S) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Receiver	NT6X92BC		2	X	Y, 28-Y	AP
Desig Label (NT6X92BC)	P0737431		2	X	Y, 28-Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
N/A		

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Y = Card Position 6 or 7 for RSC-S. First pair begins in slot 6, second pair in slot 7.
- 2) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

- AP 1) When PEC NTZZ12VB is ordered, these items are provided.

NT6X92EA GLOBAL TONE RECEIVER (RSC-S)

PEC CODE: NTZZ12VC

CPC CODE: B0246003

| RATING: STD

REPLACES: NTZZ12VB

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ12VC Module contains a pair of Global Tone Receivers for use in the RSC-SONET when required. This Building Block can be used for either the first or second GTR pair. Check availability before ordering.

REFERENCE DOCUMENTATION: SLZZ12VB 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Europe
Asia/Pacific

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Scott Maggiolo Dept. 3471 (PPK)

NTZZ12VC EMB2-06-UTR-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 29	ECM 586 03	Introduce NT6X92EA in RSC-S.

The NT6X92EA Global Tone Receiver (RSC-S) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Global Tone Receiver	NT6X92EA		2	X	Y, 28-Y	AP
Desig Label (NT6X92EA)	P0835224		2	X	Y, 28-Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
N/A		

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Y = Card Position 6 or 7 for RSC-S. First pair begins in slot 6, second pair in slot 7.
- 2) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

- AP 1) When PEC NTZZ12VC is ordered, these items are provided.

XPM PERIPHERAL LOADER CP

PEC CODE: NTZZ02UA

CPC CODE: B0242698

RATING: STANDARD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ02UA contains two CPs and labels for the XPM Peripheral Loader. The Peripheral Loader CP can only be used on XPM+ equipped peripherals.

REFERENCE DOCUMENTATION: NTZZ02UA 00 01
NTZZ02UA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ02UA EMB2-06-XPL-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 03 20	ECM 314 19	Introduce NTZZ02UA BB per EC#024-93747.
95 05 11	ECM 618 21	Added YY = Card Position 12 for RSC. Removed SMA Slot Pos reference - PL CP not allowed on SMA per PLM.

The XPM Peripheral Loader CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
XPM Peripheral Loader CP	NT7X05AA		1	X+14	YY	AP
XPM Peripheral Loader CP	NT7X05AA		1	X	YY	AP
Desig Label (NT7X05AA)	P0808071		1	X+14	YY	AP
Desig Label (NT7X05AA)	P0808071		1	X	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

X = Shelf Position 18 or 51 for frame applications, and 5 or 33 for cabinet applications.

YY = Card Position 12 for RSC

YY = Card Position 15 for SMS

YY = Card Position 17 for all other peripheral packfills

- 1) Peripheral Loader CP may NOT be used on the SMA module.

RULES:

AP 1) When PEC NTZZ02UA is ordered, these items are provided.

CABINETIZED INTERNATIONAL PERIPHERAL EQUIPMENT MOD B

PEC CODE: NTZZ37AC

CPC CODE: B0242891

RATING: STD

REPLACES: NTZZ37AA, NTZZ37AB, NTZZ37EA

REPLACED BY: None

ABBREVIATION NAME: Cabinetized International Peripheral Equip-
ment (CIPE)
Cabinetized PCM-30 Digital Trunk (CPDT)
Cabinetized PCM-30 Line Group (CPLG)
Cabinetized International Line Group (CILG)
Cabinetized International Digital Trunk
(CIDT)
Cabinetized Digital Trunk Offshore (CDT0)
Cabinetized Line Group Offshore (CLG0)
Digital Trunk Controller Offshore (DTC0)
Line Group Controller Offshore (LGC0)
TOPS Message Switch (TMS)
Enhanced TOPS Message Switch (ETMS)
Operator Center Enhanced TOPS Message Switch
(OC-ETMS)

ENGINEERING DESCRIPTION: NTZZ37AC is the Building Block for NTRX46CA
Model B Cabinetized International Peripheral
Equipment (CIPE).

The NTZZ37AC may be provisioned as either a
gray or a brown cabinet.

REFERENCE DOCUMENTATION: MSRX46CA 01 11

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Deniece Land Dept. 3471 (PPK)

MAIN CONTACT: Deniece Land Dept. 3471 (PPK)

NTZZ37AC EMB2-06-ZZ37AC CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 04 06	ECM 693 09	Introduce NTZZ37AC Building Block.
95 05 08	ECM 693 10	Change to correct NTZZ37AC EMS.
95 05 19	ECM 693 11	Misc note corrections.
95 07 17	ECM 693 12	Changes per ET 72133 and ET 25629.
95 08 28	ECM 693 13	Changes per ECD 024-94268 and ECD 024-94906.
95 09 18	ECM 468 09	Add ETMS and OC ETMS.
95 09 29	ECM 693 14	Changes per ET 76763 and ET 76703.
95 11 14	ECM 693 15	Changes per ET 32729.
95 12 22	ECM 693 16	Changes per ET 33359. Change rule number for NTRX4657.
96 04 26	ECM 693 17	Introduction of GTR, NT6X92EA. Implementation of ECD: 024-95240 has been verified. Solved SRs RR60251 and RR61953 to clarify CPs required for the Echo Cancellation Control feature in RUL19.
96 05 24	ECM 693 18	RR63991 - Clarified provisioning of NTRX4657 and personality plates.
96 07 28	ECM 693 19	Per EC 024-96554 add the NT6X40FB (NTZZ02HN) and NT6X40AD (NTZZ02GB) add NT6X78AB (NTZZ97AA). Remove the NTB01AB and show NTB01AC & NTB01BA. Remove reference to LGCO and DTCO and show LGC and DTC. ADD abbreviations: PDTC & CPDT, PLGC & CPLG IDTC & CIDT, ILGC & CILG.
96 09 12	ECM 693 20	Per EC 024-97049 add the NTRX46CF and MD the NTRX46CE packfill. ADD the Kit NTRX4653 for N5 Signalling. Add the CLGO AND CDT0 abbreviations previously removed at issue 19.
96 11 08	ECM 693 21	Per EC 024-96589 MD the NTB01AB/AC. Correct Label for NT6X78AB to P0731980 per SR6A246. Show NT6X01XG Kit used on 2 and 3 processor backplanes. Show the NT6X42AA CP always required if the NTRX4653 kit is not used.
97 03 14	ECM 704 02	Consolidation of ECM 693 issue 21. Per 024-96344 MD NTZZ97AA add NTZZ02EA Per 024-96494 MD NT6X05CA add NTMX90AB reference only.

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 06 09	ECM 704 03	024-95726 MD NTB01AA and NTB02AA. replaced by NTB01AC/BA and NTB02BA. 024-96589 MD NTB01AB replaced by NTB01AC/BA and MD NTB01AC replaced NTB01BA. Clarify Rules. Clarify the provisioning rules for UTR's when NTB01's are used. Per 024-98050 add: Note reason for cabinet REL change. NT6X0223 replaced by NT6X0241 with pins added in slots 1 through 5. 6X27JA M20 NTT CP & Label (JPN) 6X55JA CII/CMI CP & Label (JPN) 6X50AB DS1 Interface CP & Label Add cable kits for the above 3 CP's: RX46YB for NT6X27JA/NT6X27BB) CP's. RX46YA for NTNT6X50AB and NT6X55JA. Remove NT6X02WF/NT7X05AA - 024-98050.
97 07 23	ECM 704 04	Clarify Cabinet and module abbrev. on sheet 1 and RUL1. (SR 77915)
97 07 31	ECM 704 05	Add Packfill and slot options in RUL2. Add AP and provisionable items in RUL2. Add additional abbreviations at the NTRX46CF listing: CDT0, CLG0, CPDT, and CPLG. Also add a note at RUL1 that the OC-ETMS may be referenced as "OCET" in the tools due to spacing limitations.
97 09 12	ECM 704 06	Retire NTZZ37CD, replaced by NTZZ37CU. Retire NTZZ37CE, replaced by NTZZ37CL, per EC 024-98050, EC 024-98549 and SR 79611. Show CIPE as Cabinet and DTC (Japan) a module. Clarify cable notes and show NTZZ37CS/CT as PCM-30 co-axial panel application. Remove P0711579 Label sheet, clarify notes.

The Cabinetized International Peripheral Equipment MOD B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CIPE	NTRX46CA	CIPE	1			AP
CIPE MSP Kit	NTRX4650	MSP	1	61		AP
Fan Power control	NTRX54BA		1	61	19	AP
C28 Cabinet Assembly	NTRX25AA		1			AP-01
Universal Connector Bracket	NT6X02UF		2			AP-01
C28 Cabinet Mechanicals	NTRX25AA		1			AP-01
# Offshore CPC Shelf Assy	NT6X0223		4	47,33 19,05		
Offshore CPC Shelf Assy	NT6X0241		4	47,33 19,05		AP-01
Fuse 1 1/3A, QFF1A	A0205202			61		RUL10
Fuse Designation Disc	P097P235			61		RUL10
Label Sheet, Fuse Desig	P0800315			61		RUL10
# CIPE Common Packfill	NTRX46CE	PDTC/PLGC IDTC/ILGC TMS/ETMS		X		RUL2
CIPE Common Packfill	NTRX46CF	PDTC/PLGC IDTC/ILGC TMS/ETMS DTCI/LGCI DTCO/LGCO CIDT/CILG OC-ETMS (OCET) CDTO/CLGO CPDT/CPLG DTC (Japan)		X		RUL2
CPC Filler Faceplate	NT6X02AB			X		RUL2
Blank Personality Plate	P0715616					RUL2
Enh ISDN D-chan Handler CP	NTBX02BA			X+14,X	01-05	RUL10
DS1 Interface CP	NT6X50AB			X+14,X	01-05	RUL23
CII/CMI Interface CP	NT6X55JA			X+14,X	01-05	RUL23
CII/CMI/DS1 Link H/W Kit	NTRX46YA			33,47		RUL23
Personality Plates Upper	NTZZ37CU			33,47		RUL23
Personality Plates Lower	NTZZ37CL			05,19		RUL23

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
PCM-30 Trunk Interface CP	NT6X27BB			X+14,X	02-05	RUL6
M20 Interface CP	NT6X27JA			X=14,X	02-05	RUL6
M20/PCM30 Link H/W Kit	NTRX46YB			33,47		RUL6
Personality Plates Upper	NTZZ37CU			33,47		RUL6
Personality Plates Lower	NTZZ37CL			05,19		RUL6
DS30A LCM Interface CP	NT6X48AA			X+14,X	06,07	RUL5
LGC/DTC Processor CP	NT6X45BA			X+14,X	08	RUL20
4 MB Master Proc. Mem CP	NT6X47AC			X+14,X	09	RUL20
Signal Proc. MEM Plus CP	NT6X46BB			X+14,X	11	RUL20
LGC/DTC Processor CP	NT6X45BA			X+14,X	12	RUL20
Unified Processor	NTMX77AA			X+14,X	12	RUL16
Continuity Tone Detector CP	NT6X70AA			X+14,X	13	RUL8
# CLASS Modem Resource CP	NT6X78AA			X+14,X	13	RUL8
CLASS Modem Resource CP	NT6X78AB			X+14,X	13	RUL8
# CLASS Modem Resource	NTZZ97AA			X+14,X	13	RUL8
CLASS Modem Resource	NTZZ02EA			X+14,X	13	RUL8
# Universal Tone Receiver CP	NT6X92CA		2	X+14,X	15	RUL9
Global Tone Receiver CP	NT6X92EA		2	X+14,X	15	RUL9
Enh ISDN Signal. Preproc CP	NTBX01BA			X+14,X	16	RUL18
# Enh ISDN Signal. Preproc CP	NTBX01AC			X+14,X	16	RUL18
# Enh ISDN Signal. Preproc CP	NTBX01AB			X+14,X	16	RUL18
# XPM ISDN Signal. Preproc CP	NTBX01AA			X+14,X	16	RUL18
# Universal Tone Receiver CP	NT6X92CA		2	X+14,X	17	RUL9
Global Tone Receiver CP	NT6X92EA		2	X+14,X	17	RUL9
Tone Receiver CP for N5	NT6X62DA			X+14,X	17	AP04
XPM+ Echo Canceller Kit	NT6X01XG			X+14,X	19,19R	RUL19
Cable Assembly	NTNX36AE			X+14,X		RUL19
XPM PLUS Terminator Pb	NTMX71AA			X+14,X	20R	RUL16
PCM-30 Signalling CP	NT6X28AA			X+14,X	19	RUL7
Channel Supervision MSG CP	NT6X42AA			X+14,X	20	RUL21
CSM and N5 Splitter CP	NT6X42CA			X+14,X	20	AP04
DS30 Network Interface CP	NT6X40AC			X+14,X	22	RUL4
DS30 Network Interface CP	NT6X40AD			X+14,X	22	RUL4
DS30 Network (NT6X40AD's)	NTZZ02GC			X+14,X	22	RUL4
# XPM DS512 Link Control CP	NT6X40CA			X+14,X	22	RUL4
# XPM DS512 Link Control CP	NT6X40DA			X+14,X	22R	RUL4

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Power Converter +/-5V 12V CP	NT2X70AE			X+14,X	25	RUL14
Power Converter +/-5V 12V CP	NT2X70AF			X+14,X	25	RUL14
NT2X70AF Upgrade Kit	NT2X70AY			X+14,X	25	RUL14
Power Converter -60V	NT2X70KA			X+14,X	25	RUL15
DS30 Interface Cable Assy	NTRX4665			05		RUL13
DS30 Interface Cable Assy	NTRX4666			19		RUL13
DS30 Interface Cable Assy	NTRX4667			33		RUL13
DS30 Interface Cable Assy	NTRX4668			47		RUL13
DS512 Network Interface	NTZZ37CQ			X+14,X	22, 22R	RUL4
DS512 Network Interface	NT6X40FA			X+14,X	22	RUL4
DS512 Network Interface	NT6X40GA			X+14,X	22R	RUL4
DS512 Network Interface	NT6X40FB			X+14,X	22	RUL4
DS512 Network Interface	NTZZ02HN			X+14,X	22, 22R	RUL4
Label, Warning, German	P0737638			05, 33		RUL4
Filler Faceplate	NT0X50AA			X+14,X		RUL3
Coax PCM-30 PCB Kit	NTRX4656			05		AP02
Coax PCM-30 PCB Kit	NTRX4656			33		AP03
N5 Signalling Upgrade kit	NTRX4653			05, 33		RUL22
# PCM-30 Enh I/F H/W Kit Upper	NTZZ37CJ			33		RUL6
# PCM-30 Enh I/F H/W Kit Lower	NTZZ37CK			05		RUL6
PCM-30 Co-Ax Panel Kit,Upper	NTZZ37CS			05		RUL6
PCM-30 Co-Ax Panel Kit,Lower	NTZZ37CT			05		RUL6
# PCM-30 Bas I/F H/W Kit Upper	NTZZ37CD			33		RUL6
# PCM-30 Bas I/F H/W Kit Lower	NTZZ37CE			05		RUL6
Personality Plates Upper	NTZZ37CU			33, 47		RUL6
						RUL23
Personality Plates Lower	NTZZ37CL			05, 19		RUL6
						RUL23
Coax PCM-30 Cover Kit	NTRX4657			05, 33		RUL6
				33, 47		RUL23
# Designation Labels Sheet	P0711579					RUL6
Personality Plate	P0734652			05		AP02
Personality Plate	P0734653			19		AP02
Personality Plate	P0734654			33		AP03
Personality Plate	P0734655			47		AP03
Blank Personality Plate	P0715616			X+14,X		RUL6
DS30A I/F 6-Port (0P0) Cable	NTRX4625			05		RUL5
DS30A I/F 6-Port (0P1) Cable	NTRX4626			05		RUL5
DS30A I/F 6-Port (0P2) Cable	NTRX4627			05		RUL5
DS30A I/F 6-Port (0P3) Cable	NTRX4628			05		RUL5

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30A I/F 4-Port (0P4) Cable	NTRX4629			05		RUL5
DS30A I/F 4-Port (0P5) Cable	NTRX4630			05		RUL5
DS30A I/F 4-Port (0P6) Cable	NTRX4631			05		RUL5
DS30A I/F 4-Port (0P7) Cable	NTRX4632			05		RUL5
DS30A I/F 6-Port (1P0) Cable	NTRX4633			33		RUL5
DS30A I/F 6-Port (1P1) Cable	NTRX4634			33		RUL5
DS30A I/F 6-Port (1P2) Cable	NTRX4635			33		RUL5
DS30A I/F 6-Port (1P3) Cable	NTRX4636			33		RUL5
DS30A I/F 4-Port (1P4) Cable	NTRX4637			33		RUL5
DS30A I/F 4-Port (1P5) Cable	NTRX4638			33		RUL5
DS30A I/F 4-Port (1P6) Cable	NTRX4639			33		RUL5
DS30A I/F 4-Port (1P7) Cable	NTRX4640			33		RUL5
Cooling Unit Kit (10")	NTRX92AA	CU	1	00		AP
Ext. Power Filter Cable Kit	NTRX46CC		1			RUL11
Horizontal Power Cable Kit	NTRX46CD		1			RUL11
Wiring List (Non-ISDN)	NTRX46WC					RUL10
Desig. Label (NTRX54BA)	P0741680		1			AP
Desig. Label (NTBX02BA)	P0737724					RUL3
Desig. Label (NT6X27BB)	P0739157					RUL3
Desig. Label (NT6X27JA)	P0703369					RUL3
Desig. Label (NT6X28AA)	P0653635					RUL3
Desig. Label (NT6X40AC)	P0695397					RUL3
Desig. Label (NT6X40AD)	P0834806					RUL3
Desig. Label (NT6X40FA)	P0729895					RUL3
Desig. Label (NT6X40FB)	P0834807					RUL3
Desig. Label (NT6X48AA)	P0626877					RUL3
Desig. Label (NT6X50AB)	P0690976					RUL3
Desig. Label (NT6X55JA)	P0703370					RUL3
Desig. Label (NT6X70AA)	P0628358					RUL3
# Desig. Label (NT6X78AA)	P0699568					RUL3
Desig. Label (NT6X78AB)	P0731980					RUL3
Desig. Label (NT6X40CA)	P0710477					RUL3
Desig. Label (NT6X45BA)	P0665152					RUL3
Desig. Label (NT6X47AC)	P0711821					RUL3
Desig. Label (NT6X46BB)	P0711664					RUL3
Desig. Label (NTMX77AA)	P0735417					RUL3
Desig. Label (NT6X92CA)	P0677831					RUL3
Desig. Label (NT6X92EA)	P0835224			X+14, X	15, 17	RUL14
Desig. Label (NTBX01BA)	P0713794					RUL3

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
#	Desig. Label (NTBX01AC)	P0803505					RUL3
	Desig. Label (NT2X70AF)	P0809960					RUL3
	Desig. Label (NT2X70KA)	P0737462					RUL3
	C28 English Label Kit	NTRX3541					RUL1
	C28 German Label Kit	NTRX3542					RUL1
	C28 Cabinet Mechanicals	NTRX25AA					NOTE3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ37CJ	MD	NTZZ37CS
NTZZ37CK	MD	NTZZ37CT
NT2X70AE	MD	NT2X70AF
NT6X92CA	STD *	NT6X92EA
NT6X78AA	MD	NT6X78AB
NT6X40CA	MD	NT6X40FA
NT6X40DA	MD	NT6X40GA
NTRX46CE	MD	NTRX46CF
NTBX01AA	MD	NTBX01AC/BA
NTBX01AB	MD	NTBX01AC/BA
NTBX01AC	MD	NTBX01BA
NTBX02AA	MD	NTBX02BA
NTZZ97AA	MD	NTZZ02EA
NT6X0223	STD **	NT6X0241
NTZZ37CD	MD	NTZZ37CU
NTZZ37CE	MD	NTZZ37CL
P0711579	STD ***	None

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

- * Meaning NT6X92CA is still STD. It will be replaced by NT6X92EA. Check availability before ordering the NT6X92EA.
- ** Meaning NT6X0223 is still STD; however, replaced by the NT6X0241 on the NTRX46CA Cabinet. The same backplane PCB and artwork is used, but compliant pins have been added in the P-side slots to support the NT6X55JA. Cabinet REL11 has NT6X0241 shelves always provided.
- *** Meaning P0711579 is STD; however, no longer used on the CIPE for labeling. New cables have connectors already stamped.

NOTES:

- 1) For the lower module in the frame, X=05 (ie. shelf positions 05 and 19), and for the upper module in the frame X=33 (ie. shelf positions 33 and 47).
- 2) PLGC (PCM-30 Line Group Controller) supports lines and PCM-30 remote links, while PDTCC (PCM-30 Digital Trunk Controller) supports PCM-30 trunking.

Modules of different types may be mixed on the frame if required.

- 3) The NTZZ37AC has system level provisionable items covering the following:

Seismic zone provisioning,

Grounding options,

Cable routing options,

Cabinet Fail Lamp provisioning, and

Cabinet door provisioning.

For details of the above, refer to the Engineering Manual Section for the NTRX25AA, C28 Cabinet Mechanical Assembly.

RULES:

- AP-01 1) This PEC is always provided in the NTRX46CA CIPE, and is shown here for completeness. NT6X0223 shelf is still rated STD; however, replaced by the NT6X0241 on the CIPE cabinet.

The same backplane PCB and artwork is used, but the compliant pins have been added in the P-side slots to support the NT6X55JA. Cabinet REL11 has NT6X0241 shelves always provided.

AP-02 1) This PEC is always provided in the NTZZ37CT PCM-30 I/F H/W Kit and is shown here for completeness.

AP-03 1) This PEC is always provided in the NTZZ37CS PCM-30 I/F H/W Kit and is shown here for completeness.

AP-04 1) This PEC is always provided in the NTRX4653 N5 Signalling H/W Kit and is shown here for completeness.

RUL1 1) Provide for each CIPE:

The cabinet name is derived from the bottom module (i.e. the first one assigned) as tabulated below, even when the top module is not the same as the bottom module:

For TOPS Provisioning see ECM606 and ECM695.

BOTTOM MODULE NAME	RESULTING CABINET NAME	CABINET ABREVIATED NAME
DTC	Digital Trunk Controller for Japan Applications	CIPE
PDTC	Cabinetized PCM-30 Digital Trunk Controller	CPDT
PLGC	Cabinetized PCM-30 Line Group Controller	CPLG
IDTC	International Digital Trunk Controller	CIDT
ILGC	International Line Group Controller	CILG
DTC0	Cabinetized Digital Trunk Controller Offshore	CDT0
LGC0	Cabinetized Line Group Controller Offshore	CLG0
DTCI	Cabinetized Digital Trunk Controller ISDN	CDT0
LGCI	Cabinetized Line Group Controller ISDN	CLG0
TMS	TOPS Message Switch	TMS
ETMS	Enhanced TOPS Message Switch	TMS
OC-ETMS	Operator Center-Enhanced TOPS Message Switch (see Note)	TMS

note: The OC-ETMS may be referred to as "OCET" in the tools due to spacing limitations. The actual Label is "OC-ETMS".

2) Provide one (1) of the following label kits per cabinet:

- one (1) NTRX3541 C28 English Label Kit, or
- one (1) NTRX3542 C28 German Label Kit.

RUL2 1) For each equipped module, provide:

- one (1) NTRX46CF CIPE Common Packfill

Note: The NTRX46CF packfill contains the parts marked "*" below.
Other slots are provisionable as shown.

DESCRIPTION	CODE	QTY	SLOT	R
DS-1 INTERFACE	6X50AB	10	1 TO 5	R
CII/CMI INTERFACE	6X55JA	10	1 TO 5	R
ISDN D-CHANNEL HANDLER	BX02AA/BA	10	1 TO 5	R
M20 INTERFACE	6X27JA	8	2 TO 5	R
PCM30 INTERFACE	6X27BB	8	2 TO 5	R
DS-30A LCM INTERFACE	6X48AA	4	06,07	R
LGC/DTC PROCESSOR	6X45BA	4	08,12	R
FILLER FACEPLATE 0.875 (XPM+)	0X50AA	6	8,9,11	R
4 MB MASTER PROCESSOR MEMORY	6X47AC	2	09	R
* FILLER FACEPLATE 0.875	*0X50AA	2	10	*AP R
SIGNAL PROCESSOR MEMORY PLUS	6X46BB	2	11	R
UNIFIED PROCESSOR (XPM+)	MX77AA	2	12	R
CONTINUITY TONE DETECTOR	6X70AA	2	13	R
CLASS MODEM RESOURCE	6X78AA/AB	2	13	R
* UNIVERSAL TIME SWITCH (UK)	*6X44EA	2	14	*AP R
UNIVERSAL TONE RECEIVER	6X92CA/EA	4	15,17	R
ISDN SIGNALING PRE-PROCESSOR	BX01AA/AB	2	16	R
	BX01AC/BA			
SPECIALIZED TONE RECEIVER FOR N5	6X62DA	2	17	R
* CPP MESSAGE PROTOCOL	*6X69LB	2	18	*AP R
PCM30 SIGNALLING	6X28AA/AC	2	19	R
ECHO CANCELLATION CONTROLLER	CX50AB	2	19R	R
CHANNEL SUPERVISION MESSAGE	6X42AA	2	20	R
CSM AND N5 SPLITTER	6X42CA	2	20	R
XPM PLUS TERMINATOR PADDLEBD. (XPM+)	MX71AA	2	20R	R
* SPEECH BUS FORMATTER (TURKEY)	*6X41AB	2	21	*AP R
DS-30 NETWORK INTERFACE	6X40AC/AD	2	22	R
DS-512 NETWORK INTERFACE	6X40CA/FA/FB	2	22	R
DS-512 FIBER LINK PADDLECARD	6X40DA/GA	2	22R	R
* FILLER FACEPLATE 0.875	*0X50AA	4	23,24	*AP R
POWER CONVERTER +/- 5V & 12V (60V)	2X70KA	2	25	R
POWER CONVERTER +/- 5V & 12V (48V)	2X70AF	2	25	R
* DESIGNATION STRIP FOR NTRX46CF	*P0815386	2	--	*AP R

2) If the second module is not equipped on the last CIPE, provide:

- one (1) NT6X02AB Common Peripheral Controller
Module Filler Faceplate Kit.

NOTE: Two (2) P0715616 Blank Personality Plates are also required for each unequipped module per RUL6, paragraph 2c.

RUL3 1) For each equipped module, each slot which is unequipped with a circuit pack, provide:
- one (1) NT0X50AA Filler Face Plate.

2) Provide the appropriate designation label for each CP provided.

RUL4 1) When DS30 copper network interface is required in a non-ENET office, provide for each equipped module:
- two (2) NT6X40AC DS30 Network CPs
- two (2) Designation labels P0695397

OR

- two (2) NT6X40AD DS30 Network CP's
- two (2) Designation labels P0834806

AND

- one (1) NTRX4665 DS30 Backplane Cable Assembly (Shelf 05)
- one (1) NTRX4666 DS30 Backplane Cable Assembly (Shelf 19)
- one (1) NTRX4667 DS30 Backplane Cable Assembly (Shelf 33)
- one (1) NTRX4668 DS30 Backplane Cable Assembly (Shelf 47)

The NT6X40AD is backwards compatible with the NT6X40AC. however, the NT6X40AD has an enhanced C-side loop-around test diagnostic feature available with XPM05+ software loads. If the NT6X40AD and NT6X40AC are mixed in a module, they must be data-filled as NT6X40AC in order for diagnostics to pass. Use NT6X40AD for new production. (NTZZ02GC - (2) NT6X40AD's & (2) P0834807 labels.)

2) When fiber network interface is required in an ENET office, provide for each equipped module:

- one (1) NTZZ37CQ DS512 Network I/F, which consists of:
- two (2) NT6X40FA DS512 Network I/F CP
- two (2) P0729895 Designation Label (NT6X40FA)
- two (2) NT6X40GA DS512 Paddleboard
- one (1) P0689010 Snap Bushing
- one (1) NT6X0251 Fiber Cable Kit

OR

- one (1) NTZZ02HN DS512 Network I/F, which consists of:
- two (2) NT6X40FB DS512 Network I/F CP
- two (2) P0729895 Designation Label (NT6X40FB)
- two (2) NT6X40GA DS512 Paddleboard

- one (1) NT6X0251 Fiber Cable Kit
- AND
- one (1) P0689010 Snap Bushing

The NT6X40FB is backwards compatible with the NT6X40FA. however, the NT6X40FB has an enhanced C-side loop-around diagnostic feature available with XPM05+ software loads. If the NT6X40FA and NT6X40FB are mixed in a module, they must be data-filled as NT6X40FA in order for diagnostics to pass. Use NT6X40FB for new production.

- 4) When fiber network interface is required in a German-speaking environment, provide for each equipped module:
- one (1) P0737638 Label, Warning, German

- RUL5 1) For DS30A interface provide for each equipped module:
For PLGC applications, to interface links from LCMi, LCME, and/or LCM, provide:
- four (4) NT6X48AA 30A LCM Interface CPs.
 - four (4) P0638261 Connector Key Brackets
 - eight (8) P0140818 Washers

For PDTC applications provide:

- four (4) NT0X50AA Filler Face Plates, as detailed in RUL3.

- 2) The NT6X48AA CP are assigned in pairs for reliability. One member of the pair interfaces the same DS30A ports as the other member. Each member of the pair occupies the same CP position, with one CP assigned to LGAI/LTAI 0 (lower shelf of the module) and the other assigned to LGAI/LTAI 1 (upper shelf of the module).
- 3) The two pairs of NT6X48AA provide interfaces for up to twenty (20) DS30A ports (links) from LCMIs, LCMEs and/or LCMs. The following is a listing of DS30A ports per DS30A LCM Interface CP, NT6X48AA location.

	CP POS 6	CP POS 7
PORT	2	0
PORT	3	1
PORT	6	4
PORT	7	5

PORT	10	8
PORT	11	9
PORT	14	12
PORT	15	13
PORT	18	16
PORT	19	17

- 4) The ports for DS30A must be selected from the those ports that remain after assignment of port circuits to EDCH in RUL10 and to PCM-30 circuits in RUL6.
- 5) Assign ports to DS30A in the following sequence: 19, 17, 18, 16, 15, 13, 14, 12, 11, 9, 10, 8, 7, 5, 6, 4, 3, 1, 2 and 0 (if unused by EDCH or PCM-30). In an extension job, when adding new EDCH ports (RUL10), the DS30A ports may have to be reconfigured in accordance with this rule.
- 6) DS30A Port Cables shall be provisioned by the job engineer based on CCS/line requirements. These cables connect DS30A signals from the backplane of the CIPE using 2X4 connectors (1 port per connector), to the CIPE bulkhead. Cables are equipped with six 2X4 connectors (6-Port cables) or four 2X4 connectors (4-Port cables) and shall be provisioned based on port requirements.

6-Port Cable and Bulkhead Connector Designations:

CABLE PEC	CONNECTS SHELVES	BULKHEAD CONNECTOR DESIGNATION
NTRX4625	05-19	0P0
NTRX4626	05-19	0P1
NTRX4627	05-19	0P2
NTRX4628	05-19	0P3
NTRX4633	33-47	1P0
NTRX4634	33-47	1P1

NTRX4635	33-47	1P2
NTRX4636	33-47	1P3

4-Port Cable and Bulkhead Connector Designations:

CABLE PEC	CONNECTS SHELVES	BULKHEAD CONNECTOR DESIGNATION
NTRX4629	05-19	0P4
NTRX4630	05-19	0P5
NTRX4631	05-19	0P6
NTRX4632	05-19	0P7
NTRX4637	33-47	1P4
NTRX4638	33-47	1P5
NTRX4639	33-47	1P6
NTRX4640	33-47	1P7

- 7) When DS30A Port Cables are not required, cover plates are to be provisioned for each port not used.

RUL6 1) For each equipped module, provide:

- minimum four (4) and maximum eight (8) NT6X27BB PCM-30 Interface CPs.

-OR-

- minimum four (4) and maximum eight (8) NT6X27JA M20 Interface Circuit packs for Japan applications in slots 5 through 2.

The Minimum software baseline for NT6X27JA is APC03 (Base03/TL02).

Note: DO Not mix the NT6X27BB and NT6X27JA CP's in the same shelf or cabinet.

Provide one NT6X27BB/JA for each two PCM-30/M20 ports required. Assign NT6X27BB/JA to the module starting at port

0 and continue e in sequential in order to port 15.
Following is a listing Port/Pack relationship:

SLOT	5	4	3	2	1	
SHF POS X-14	PORTS 2,3	PORTS 6,7	PORTS 10,11	PORTS 14,15	Blank	UNIT 1 SHELF 19
SHF POS X	PORTS 0,1	PORTS 4,5	PORTS 8,9	PORTS 12,13	Blank	UNIT 0 SHELF 05

Only Port 0 or 2 may be used for syncing the office to an
incoming carrier. (Port 0 is preferred.) Each pack pro-
vides 2 M20 ports.

Provide additional PCM30 cards per customer requirments be-
low: (maximum 96 operators). Greater than 64 operator po-
sitions. slot 4, shelf 0. TPC Interfa data base
access..... Slot 4. shelf 1 and slot 3 ce Shelf 0.
inter dch for ordb.....Slot 3, shelf 1.

For TOPS applications provide slot 5 of each shelf in
module with le with PCM30 PCM-30 card NT6X27BB for TPC
interface.

For TMS, ETMS, and OC ETMS applications, refer to ECM 468.

2) TERMINATIONS may be provided in the following versions:

a) Enhanced PCM-30 Interfacing supporting coaxial cables to MDF,
for NT6X27BB. (NTZZ37CS-Top NTZZ37CT-Bottom). Note that the
NT6X27JA (M20/Japan) is not supported by Coaxial Cables or
Panels.

- For an equipped module in shelf positions 47 and 33
- One (1) NTZZ37CS PCM-30 Enhanced I/F H/W Kit, Upper Module.
Containing: (1) NTRX46WA Wire List
(2) NTRX4614 Send Cable
(2) NTRX4615 Recieve Cable
(1) P0734654 Personality Plate (33)
(1) P0734655 Personality Plate (47)

- (1) NTRX4656 Kit: Misc HW
 - (1) NTRX4612
 - (1) NTRX4613

- For an equipped module in shelf positions 05 and 19
 - One (1) NTZZ37CT PCM-30 Enhanced I/F H/W Kit, Lower Module.
 - Containing: (1) NTRX46WA Wire List
 - (2) NTRX4614 Send Cable
 - (2) NTRX4615 Recieve Cable
 - (1) P0734652 Personality Plate (05)
 - (1) P0734653 Personality Plate (19)
 - (1) NTRX4656 Kit: Misc HW
 - (1) NTRX4612
 - (1) NTRX4613

To seal off the personality plates from radiating EMI, whether these personality plates are provisioned or always provided in the provisioned Coaxial Cable I/F Assemblies, provide for each unused 37-pin connector:

- one (1) P0715774 37-Pin Cover Plate.

The NTZZ37CS kit should not be provisioned if the upper module is only a NT6X02AB filler kit. Provision two (2) Blank Personality Plates if NT6X02AB is used.

- b) NTRX46YB M20/PCM-30 Link hardware Kit for NT6X27BB PCM-30 (twisted pair) Interfacing or NT6X27JA M20 Interface for Japa
The NTRX46YB Contains: (32) A0317136 Connectors
 - (8) A0385509 Filter
 - (1) NTNX3309 Cable (05)
 - (1) NTNX3310 Cable (19)
 - (1) NTNX3311 Cable (33)
 - (1) NTNX3312 Cable (47)

Cable Assembly	Bulkhead Designations
-----	-----
NTNX3309	R00, R01
NTRX4610	S00, S01
NTNX3311	R10, R11
NTRX4612	S10, S11

Note: The NTRX46YB Kit provides for One Cabinet. Also require is the NTZZ37CU (Upper Module Personality Plates) and the NTZZ37CL (Lower Module Personality Plates) to be

used on the CIPE Bulkhead. The P0711579 will no longer required with the above NX Cables. The NTRX4657 Coaxial PCM30 Cover Kit is to be provided, (1) one per module when Twisted-pair is used.

NTZZ37CU Contains:

- (1) P0734654 Personality Plate (33)
- (1) P0734655 Personality Plate (47)

NTZZ37CL Contains:

- (1) P0734652 Personality Plate (05)
- (1) P0734653 Personality Plate (19)

To seal off the personality plates from radiating EMI, whether these personality plates are provisioned or always provided in the provisioned Coaxial Cable I/F Assemblies, provide for each unused 37-pin connector:

- one (1) P0715774 37-Pin Cover Plate.

c) No PCM-30/M20 Interfacing.

- Two (2) P0715616 Blank Personality Plates if top module is empty.

RUL7 1) For each equipped LGC/DTC which supports PCM30 links (NT6X27 PCM-30 Interface CPs provided per RUL6), or for each equipped LGC module which supports links to an LCM (NT6X48 DS30A LCM Interface CPs provided per RUL5), and the LCM is equipped with a PCM30 line drawer such as the NT6X05CA, provide:

- two (2) NT6X28AA PCM-30 Signaling Interface CPs.

The NT6X05CA PCM30 Line Drawer (PLD) has been MD'ed with a functional replacement of NTMX90AB Global Peripheral Platform (GPP).

RUL8 1) When this PCM-30 DTC is handling CCIS/CCS7 voice trunking, provide for each equipped module:

- two (2) NT6X70AA Continuity Tone Detector CPs.

This CP supports a Continuity Test (COT), and is recommended whenever analog facilities are employed in part or all of the transmission path.

When the facility is end-to-end digital, this CP is not required since digital facilities employ other means of fault detection.

Note that NT6X70AAs for CCIS/CCS7 voice trunking, may not be provisioned on a DTC which is provisioned with NTB01 ISDN CPs provisioned per RUL10.

- 2) When the Calling Number Delivery/Calling Number Display (CND) feature is ordered, provide for each equipped PCM-30 LGC module:
 - one (1) NTZZ02EA for CLASS Modem Resource. Contents:
 - (2) NT6X78AB CP's and (2) P0731980 labels.

- RUL9 1) When analog (POTS) lines are to be supported, or when non-ISDN trunks (A/B bit signalling) are interfaced to a PCM-30 DTC module, provide a two (2) NT6X92CA UTR CPs for each PCM-30 LGC module. Maximum of four (4) NT6X92CA can be provided per Module.

(OR)

- 1a) Provide two (2) or four (4) NT6X92EA in slots 15 or 17 per PDTC/PLGC module for DIGITONE receivers (LINES) or MF receivers (Trunks). Each of the NT6X92EA circuit pack provides tone reception for PCM 30 Channels. The NT6X92EA is a CCITT compliant tone receiver. (Complies with CCITT Recommendations Q.24, Q.323 and Q.455 for DTMF and MF tone reception) Check availability before ordering the NT6X92EA. DO NOT mix NT6X92 CP types on the same shelf.
- 2) When an ISDN Processor (BX01) is installed a maximum of 2 UTRs may be provisioned. This is per DDOC AJ1062FN version AC01. The DDOC states that two UTR cards can be datafilled on the PLGC or PDTC when the ISP16 is datafilled, only 1 UTR card is allowed (UTR15 or UTR17). UTR16 cannot be datafilled with the ISP16, as they both occupy the same slot. For N5 PDTC applications and ISDN applications the number of UTRs is limited to 2 per Module (recommended in slot 15).

- RUL10 1) For Non-ISDN applications, provide for each equipped module:
- one (1) NTRX46WC Wiring List (Non-ISDN).
- 2) When ISDN PRA or BRA functions are required for each equipped module, provide:

- two (2) NTB01BA ISDN Pre-processor CPs.

The NTB01BA may only be used with MX77 or AX74 CP's.

When ISDN BRA functions are required (ISDN functions on subscriber lines) for each equipped module, provide in addition to NTB01BA above:

- up to ten (10) NTB02BA Enhanced D Channel Handler (EDCH) CPs.

One (1) of the EDCH CP may be designated as a hot spare.

For TMS (TOPS Message Switch) applications, provide:

- four (4) NTB02BA Enhanced D Channel Handler CPs. These EDCH CPs occupy slot 2 and 3 of both shelves. Slot 1 should contain fillers

- Each NTB02BA supports up to 124 BRA D-Channels. The spare EDCH CP should not be counted when determining the number of NTB02BA required to support D-channel traffic.
- Each NTB02BA EDCH, including the spare, requires one (1) peripheral port on the module. Assign NTB02BA cards to shelf and slot positions in the following order. The spare EDCH should be assigned last:

NTB02BA Provisioned	Shelf Position	CP Slot	Assign to Logical Port Number
1st	X+14	1	19
2nd	X	1	17
3rd	X+14	2	15
4th	X	2	13
5th	X+14	3	11
6th	X	3	09
7th	X+14	4	07
8th	X	4	05
9th	X+14	5	03
10th	X	5	01

For lower module X is shelf position 05 and
X+14 is shelf position 19.

For upper module X is shelf position 33 and
X+14 is shelf position 47.

- 5) EDCH CP are not required for PDTC (PRI) applications, nor where the module supports only non-ISDN LCMs.
- 6) For each NTB02BA provided, provide:
- one (1) A0205202 Fuse 1 1/3A, and
 - one (1) P097P235 Fuse Designation Disc,

as indicated below:

For NTB02BA Provisioned in		Provide Fuse on Shelf 61 in	
Shelf	Slot	Slot	Fuse
05	01	08	F01
	02		F02
	03		F03
	04		F04
	05		F05
19	01	09	F01
	02		F02
	03		F03
	04		F04
	05		F05
33	01	10	F01
	02		F02
	03		F03
	04		F04
	05		F05
47	01	11	F01
	02		F02
	03		F03
	04		F04
	05		F05

- 6) Provide one (1) P0800315 Label Sheet per cabinet when EDCH CPs are provided. Each Label Sheet provides labels for two cabinets fully equipped with NTB02BA.
- 7) EDCH NOT REQUIRED IN OC ETMS.

- RUL11 1) Provide one (1) NTRX46CC External Power Filter Cable Kit when the office requires external power. A maximum of three (3) Model B Cabinets, including CIPE, with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).
- 2) Provide one (1) NTRX46CD Horizontal Power Cable Kit when the office requires horizontal power. A horizontal power arrangement is used in Cabinetization Model A lineups. The NTRX46CD Horizontal Power Kit may be used when CIPE Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).
- RUL12 1) Unassigned.
- RUL13 1) Provide one (1) NTRX4665 DS30 backplane cable assembly (SH05), one NTRX4666 DS30 backplane cable assembly (SH19), one NTRX4667 DS30 backplane cable assembly (SH33), and one NTRX4668 DS30 backplane cable assembly (SH47), when DS30 interface is required.
- RUL14 1) The NT2X70AF should be used for all new production and all DTC+ field applications. The NT2X70AE may be used in all other -48V applications. Provide two NT2X70AF and two P0809960 labels per module for -48V applications. (NT2X70AE has been replaced by NT2X70AF).
- RUL15 1) Provide two NT2X70KA packs and two (2) P0737462 Designation labels per module for -60V applications.
- RUL16 1) Provide two NTMX77AA per module for XPM PLUS applications. NT6X45, NT6X46 and NT6X47 are not required when NTMX77AA is provided.
- 2) Provide two NTMX71AA per LGC/LTC or ISDN DTC/LGC/LTC module when NTMX77AA is provided.
- RUL17 1) Unassigned.
- RUL18 1) For ISDN XPM's with MP/SP Processor configuration, the NTB01AA/AB/AC were used. The NTB01AA/AB/AC are MD'ed. All new Production will be XPM+ with the NTB01BA. The NTB01AA will not function with XPM+ and must be removed during upgrades.
- 2) For ISDN XPM PLUS applications the NTB01AB/AC/BA have been used. Use NTB01BA for new production. The NTB01AB/AC are MD'ed.

- RUL19 1) Provide one NT6X01XG, Echo Cancellation Control Upgrade Kit, per module, for the Echo Cancellation Control feature in XPM+ peripherals.
- 2) The NT6X01XG kit contains two NTCX50AB's, two NT6X28AC's, one NTN3390 cable assembly, two labels P0725257, four P0749586 insertion guides, and wire for strapping.
- 3) The NTN3390 cable assembly (included in NT6X01XG) is used to link NTCX50AB paddleboards together and provide connectivity to the cabinet bulkhead.

Termination of NTN3390 to Bulkhead is as follows:

MODULE	SHELF TO SHELF		BULKHEAD DESIGNATION
-----	-----	-----	-----
0	05	19	EC0
1	33	47	EC1

- 4) NTN336AE is the recommended cable to mate at the bulkhead and provide connectivity to the external Echo Cancellation equipment. The cable length should not exceed 50 feet.
- 5) Note that the NT6X28AA memory addressing would not support the NTCX50AB. To support the Echo Cancellation control feature, on the XPM Plus, it is necessary to have both the circuit packs NTCX50AB and the NT6X28AC. These CPs are provided in the NT6X01XG kit. This kit must be provisioned in new offices and existing offices which require the Echo Cancellation Control feature.
- RUL20 1) The NT6X45BA LGC/DTC Processor, NT6X46BB Signal Processor memory plus and NT6X47AC 4 MB Master Processor memory may be provisioned for Non-XPM+ applications. These Processors will not be provisioned when Echo Cancellation is required.
- 2) The NT6X45BA, NT6X46BB, and NT6X47AC packs are always provided in the NTRX46CB packfill. These packs are provisionable with the NTRX46CE and NTRX46CF packfills.
- RUL21 1) The NT6X42AA CP is always required, in slot 20, two (2) per module IF the NTRX4653 N5 Signalling Kit is Not provided. The NT6X42AA Designation label will NOT be required because the Design strip already shows NT6X42AA. (The NTRX4653 kit has NT6X42CA CP's and Labels.) The NT6X42CA and NT6X62DA can only be used as part of the Kit, DO NOT use alone. See rul 22.

- RUL22 1) When N5 Signalling is required provide the Kit NTRX4653, one (1) per XPM+ module. (Also known as "C5 Digital" and "CCITT Number 5 Signalling") This Kit contains NT6X42CA and NT6X62DA CP's, labels, backplane pins, wire and instructions. These 2 CP's may NOT be provided alone. If the N5 Signalling Kit is not required, the the NT6X42AA CP must be provisioned, two (2) per module, for slot 20. The NT6X42AA label will not be needed because the existing designation strip shows NT6X42AA. The Pins provided in the N5 signalling Kit may be discarded if the cabinet release is REL11 with the NT6X0241 backplane. Here the pins have been applied.
- RUL23 1) Provide up to (10) NT6X50AB DS1 Interface Packs in slots 5 through 1 as required. Each NT6X50AB pack contains two DS1 ports.

DS1 interface packs should be provisioned starting with ports 0 and 1 in slot 5. Additional cards are added in order of port assignment as shown below:

Slot	1	2	3	4	5	
	ports 18 19	ports 14 15	ports 10 11	ports 6 7	ports 2 3	Unit 1 Shelf 19 or 47
	ports 16	ports 12	ports 8	ports 4	ports 0	Unit 0
	17	13	9	5	1	Shelf 05 or 33

Only Port 0 or 2 may be used for syncing the office to an incoming carrier. (Port 0 is preferred.)

- OR -

- 2) Provide up to (10) NT6X55JA CII/CMI Interface Packs in slots 5 through 1 when required in a Japan DTC. Each NT6X55JA pack contains one CII port in the even port position (0,2,4,6,8,10,12,14, 16,18). Each NT6X55JA also contains one CMI port in the odd port position (1,3,5,7,9,11,13,15,17,19).

The minimum software baseline for the NT6X55JA is APC03.

Each card contains one CCS Intraoffice Interface (CII) port in the even port position (0,2,4,6,8,10,12,14,16,18). The CII interface is used for connection to the NTT CCS#7 network.

Each NT6X55JA Card contains a CCS Metallic Interface (CMI) port in the odd port position (1,3,5,7,9,11,13,15,17,19). The CMI interface is used to connect the DMS to an external data analyzer or CCS#7 Signalling Simulator. Provision the NT6X55JA packs in slots 5 through 1 in order of port assignment as shown below:

Slot	1	2	3	4	5	
	ports 18 19	ports 14 15	ports 10 11	ports 6 7	ports 2 3	Unit 1 Shelf 19 or 47
	ports 16 17	ports 12 13	ports 8 9	ports 4 5	ports 0 1	Unit 0 Shelf 05 or 33

Note: Shelf NT6X0241 must be used for CMI interface. (NT6X0223 REL 05 and above has missing pin locations.)

Assign NT6X50AB/NT6X55JA to the Module starting at port 0 and continue in sequential order to port 19.

NTRX46YA Kit MUST be provided (1) per cabinet for the NT6X50AB and NT6X55JA. The NTRX46YA contains:
d continue in (32) A0317136
Connectors (8) A0382404 Filters
(1) NTN3309 Cable (05) (1) NTN3310
Cable (19) (1) NTN3311 Cable
(33) (1) NTN3312 Cable (47)

Designations	Bulkhead	Cable Assembly
NTNX3309	R00, R01	NTRX4610 S00,
S01	NTNX3311	R10, R11 NTN3312
S10, S11		

Note: The NTRX46YB Kit provides for One Cabinet. Also required is the NTZZ37CU (Upper Module Personality Plates) and the NTZZ37CL (Lower Module Personality Plates) to be used on the CIPE Bulkhead. The P0711579 will no longer be required with the above NX Cables. The NTRX4657 Coaxial PCM30 Cover Kit is to be provided, (2) two per cabinet when Twisted-pair is used.

To seal off the personality plates from radiating EMI, whether these personality plates are provisioned or always provided in the provisioned Coaxial Cable I/F Assemblies, provide for each unused 37-pin connector:

- one (1) P0715774 37-Pin Cover Plate.

c) No PCM-30/M20 Interfacing.

- Two (2) P0715616 Blank Personality Plates if top module is empty.

INTERNATIONAL XPM PLUS ISDN 48VDC COMMON CP

PEC CODE: NTZZ37BB

CPC CODE: B0239402

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME:	DTCO	Digital Trunk Controller Off-Shore
	LGCO	Line Group Controller Off-Shore
	PDTC	PCM-30 Digital Trunk Controller
	PLGC	PCM-30 Line Group Controller
	IDTC	International Digital Trunk Controller
	ILGC	International Line Group Controller
	TMS	TOPS Message Switch
ETMS	Enhanced TOPS Message Switch (XPM+)	

ENGINEERING DESCRIPTION: The NTZZ37BB is the common circuit pack fill used for XPM+ peripheral controller modules in International Common Peripheral Equipment frames and cabinets.

REFERENCE DOCUMENTATION: SLZZ37BB 00 01

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR:	Deniece Land	Dept. 3471	(PPK)

MAIN CONTACT:	Deniece Land	Dept. 3471	(PPK)

NTZZ37BB EMB2-06-ZZ37BB CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 20	ECM 643 04	Create this building block.
93 10 12	ECM 659 05	ET 39513: Add abbreviated names DTC0, LGC0, and TMS.
95 04 04	ECM 693 08	NT2X70AF replaces NT2X70AE per EC 024-93969.
95 07 18	ECM 643 14	Changes per ECD 024-93910. Change the of the NTMX71AA CP from 19R to 20R.
96 08 23	ECM 643 21	Correct Abbreviations.

The International XPM Plus ISDN 48VDC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplate	NT0X50AA		8	X+14,X	08-11	AP-01
XPM Plus Processor CP	NTMX77AA		2	X+14,X	12	AP-01
Universal Time Switch CP	NT6X44EA		2	X+14,X	14	AP-01
Msg Prot & Download Tones CP	NT6X69LB		2	X+14,X	18	AP-01
XPM+ Terminator Paddleboard	NTMX71AA		2	X+14,X	20R	AP-01
Channel Supervision Msgs CP	NT6X42AA		2	X+14,X	20	AP-01
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	21	AP-01
Filler Faceplate	NT0X50AA		4	X+14,X	23,24	AP-01
# Power Converter +-5V 50A CP	NT2X70AE		2	X+14,X	25	AP-01
Power Converter +-5V 50A CP	NT2X70AF		2	X+14,X	25	AP-01
Designation Strip	P0741862		2	X+14,X		AP-01
Desig. Label (NT0X50AA)	P0578498		4	X+14,X	08,09	AP-01
Desig. Label (NT0X50AA)	P0578498		2	X+14,X	11	AP-01
Desig. Label (NTMX77AA)	P0735417		2	X+14,X	12	AP-01
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP-01

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) A NTZZ37BB Common CP can be assigned as follows:

- In cabinets:

- Upper module
 - in shelf positions 47 and 33 (X = 33) and,
- Lower module
 - in shelf positions 19 and 05 (X = 05), or
- In Frames:
 - Upper module
 - in shelf positions 65 and 51 (X = 51) and,
 - Lower module
 - in shelf positions 32 and 18 (X = 18).

RULES:

AP 1) When PEC NTZZ37BB is ordered, these items are provided.

AP-01 1) When PEC NTZZ37BB is ordered, these items are provided.

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CIPE PCM-30 ENHANCED I/F H/W KIT, UPPER MODULE

PEC CODE: NTZZ37CB

CPC CODE: B0239131

RATING: Manufacture Discontinued

REPLACES: None

REPLACED BY: NTZZ37CJ

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37CB includes the cable assemblies and wiring list to be used for PCM-30 enhanced interface in an equipped upper module, shelf positions 33 and 47, in NTZZ37AA CIPE (Cabinetized International Peripheral Equipment).

| REFERENCE DOCUMENTATION: MSRX46AA 01 09

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Darrell Deeds Dept. 3471 (PPK)

NTZZ37CB EMB2-06-ZZ37CB CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 01	API 495 01	ECD 011-17994.
93 10 12	ECM 659 05	Change title and update description to adapt this BB for use in NTZZ37AA.
94 03 31	ECM 659 07	Modify NTZZ37CB and NTZZ37CC per ET 47173. Fix wiring list.
94 08 19	ECM 659 10	This Building Block MD and replaced by NTZZ37CJ.

The CIPE PCM-30 Enhanced I/F H/W Kit, Upper Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
PCM-30 2x8 PCB Wiring List	NTRX46WA		1	33		AP
PCM-30 (Send) Cable Assy	NTRX4614		2	47, 33		AP
PCM-30 (Receive) Cable Assy	NTRX4615		2	47, 33		AP
CIPE PCM30 Coaxial PCB Assy	NTRX4619		1	47		AP
CIPE PCM30 Coaxial PCB Assy	NTRX4618		1	33		AP
25 Pin Cover Plate	P0715775		4	47, 33		AP
Thread Forming Screw	P0670923		8	47, 33		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37CB CIPE PCM-30 Enhanced I/F H/W Kit for Upper Module can be assigned in the CIPE to shelf mounting positions 47 and 33.

RULES:

- AP 1) When PEC NTZZ37CB is ordered, these items are provided.

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CIPE PCM-30 ENHANCED I/F H/W KIT, LOWER MODULE

PEC CODE: NTZZ37CC

CPC CODE: B0239132

RATING: Manufacture Discontinued

REPLACES: None

REPLACED BY: NTZZ37CK

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37CC includes the cable assemblies and wiring list to be used for PCM-30 enhanced interface in an equipped lower module, shelf positions 05 and 19, in NTZZ37AA CIPE (Cabinetized International Peripheral Equipment).

| REFERENCE DOCUMENTATION: MSRX46AA 01 09

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Darrell Deeds Dept. 3471 (PPK)

NTZZ37CC EMB2-06-ZZ37CC CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 01	API 495 01	ECD 011-17994.
93 10 12	ECM 659 05	Change title and update description to adapt this BB for use in NTZZ37AA.
94 03 31	ECM 659 07	Modify NTZZ37CB and NTZZ37CC per ET 47173. Fix wiring list.
94 08 19	ECM 659 10	This Building Block MD and replaced by NTZZ37CK.

The CIPE PCM-30 Enhanced I/F H/W Kit, Lower Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
PCM-30 2x8 PCB Wiring List	NTRX46WA		1	05		AP
PCM-30 (Send) Cable Assy	NTRX4614		2	19,05		AP
PCM-30 (Receive) Cable Assy	NTRX4615		2	19,05		AP
CIPE PCM30 Coaxial PCB Assy	NTRX4617		1	19		AP
CIPE PCM30 Coaxial PCB Assy	NTRX4616		1	05		AP
25 Pin Cover Plate	P0715775		4	19,05		AP
Thread Forming Screw	P0670923		8	19,05		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37CC CIPE PCM-30 Basic I/F H/W Kit for Lower Module can be assigned in the CIPE to shelf mounting positions 19 and 05.

RULES:

- AP 1) When PEC NTZZ37CC is ordered, these items are provided.

CIPE PERSONALITY PLATE KIT, LOWER MODULE

PEC CODE: NTZZ37CL

CPC CODE: B0249635

RATING: STD

REPLACES: NTZZ37CE

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37CL includes the Personality Plates to be used for basic interface in an equipped lower module, shelf positions 05 and 19, in NTRX46CA CIPE Cabinetized International Peripheral Equipment. Engineering Section NTZZ37AC.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI Deniece Land Dept. 3471 (PPK)

MAIN CONTACT: NTI Deniece Land Dept. 3471 (PPK)

NTZZ37CL EMB2-06-ZZ37CL CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 09 12	ECM 704 06	Create Personality Plate Kit for Lower Module CIPE.

The CIPE Personality Plate Kit, Lower Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Personality Plate	P0734653		1	19		AP
Personality Plate	P0734652		1	05		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37CL CIPE Personality Plate Kit, Lower Module can be assigned in the CIPE, NTRX46CA, to shelf mounting positions 19 and 05.

RULES:

- AP 1) When PEC NTZZ37CL is ordered, these items are provided.

| DS30 NETWORK INTERFACE UPPER MODULE (A/B CABINET)

PEC CODE: NTZZ37CN

CPC CODE: B0240484

RATING: Standard

REPLACES: NTZZ37CA

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ37CN contains the circuit packs and cables required for a DS30 interface to the Network in an equipped LGC or DTC upper module (shelves 33 and 47 of cabinet) of cabinetized international peripheral equipment (Model A and Model B cabinets).

REFERENCE DOCUMENTATION: SLZZ37CN 00 01
SLZZ37CN REL 01

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: George Boutnikoff Dept. S646 (BRW)

MAIN CONTACT: George Boutnikoff Dept. S646 (BRW)

NTZZ37CN EMB2-06-ZZ37CN CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 02 01	ECM 659 06	NTZZ37CN created.

The DS30 Network Interface Upper Module (A/B Cabinet) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30 Network Interface CP	NT6X40AC		2	X+14,X	YF	AP
DS30 Interface Cable Assy	NTRX4667		1	X		AP
DS30 Interface Cable Assy	NTRX4668		1	X+14		AP
Desig. Label For NT6X40AC	P0695397		2	X+14,X	YF	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The shelf position assignments for a NTZZ37CN DS30 Network Interface Upper Module in a dual shelf common control peripheral module in a cabinet (Model A or B) is 47 and 33 (X = 33).

2) The circuit pack (CP) slot assignments for a NTZZ37CN DS30 Network Interface in a dual shelf common control peripheral module are as follows:

- Cabinets with ISDN capability
 - CP slot YF=22F and
CP slot YR=22R, or
- Cabinets without ISDN capability
 - CP slot YF=23F and
CP slot YR=23R.

RULES:

AP 1) When PEC NTZZ37CN is ordered, these items are provided.

| DS30 NETWORK INTERFACE LOWER MODULE (A/B CABINET)

PEC CODE: NTZZ37CP

CPC CODE: B0240485

RATING: Standard

REPLACES: NTZZ37CA

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ37CP contains the circuit packs and cables required for a DS30 interface to the Network in an equipped LGC or DTC lower module (shelves 05 and 19 of cabinet) of cabinetized international peripheral equipment (Model A and Model B cabinets).

REFERENCE DOCUMENTATION: SLZZ37CP 00 01
SLZZ37CP REL 01

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: George Boutnikoff Dept. S646 (BRW)

MAIN CONTACT: George Boutnikoff Dept. S646 (BRW)

NTZZ37CP EMB2-06-ZZ37CP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 02 01	ECM 659 06	NTZZ37CP created.

The DS30 Network Interface Lower Module (A/B Cabinet) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30 Network Interface CP	NT6X40AC		2	X+14,X	YF	AP
DS30 Interface Cable Assy	NTRX4665		2	X		AP
DS30 Interface Cable Assy	NTRX4666		2	X+14		AP
Desig. Label For NT6X40AC	P0695397		2	X+14,X	YF	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The shelf position assignments for a NTZZ37CP DS30 Network Interface Lower Module in a dual shelf common control peripheral module in a cabinet (Model A or B) is 19 and 05 (X = 05).

2) The circuit pack (CP) slot assignments for a NTZZ37CP DS30 Network Interface in a dual shelf common control peripheral module are as follows:

- Cabinets with ISDN capability
 - CP slot YF=22F and
CP slot YR=22R, or
- Cabinets without ISDN capability
 - CP slot YF=23F and
CP slot YR=23R.

RULES:

AP 1) When PEC NTZZ37CP is ordered, these items are provided.

DS512 NETWORK INTERFACE (A/B CABINET)

PEC CODE: NTZZ37CQ

CPC CODE: B0240486

RATING: STD

REPLACES: NTZZ37DA

REPLACED BY: None

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ37CQ contains the circuit packs, cable kit and snap bushing required for a DS512 interface to the Network in an equipped LGC or DTC module of cabinetized international peripheral equipment, Model A or Model B cabinets.

REFERENCE DOCUMENTATION: SLZZ37CQ 00 01

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

	ISSUE AUTHOR:	Deniece Land	Dept. 3471	(PPK)

	MAIN CONTACT:	Deniece Land	Dept. 3471	(PPK)

NTZZ37CQ EMB2-06-ZZ37CQ CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 11 17	ECM 659 01	ECDs 011-16135, 011-16761, 011-16850.
93 10 12	ECM 659 05	Update description.
94 02 01	ECM 659 06	Manufacture Discontinued.
94 09 16	ECM 693 03	Change status to STD.
95 08 28	ECM 693 13	Changes per ECD 024-94268.
96 07 28	ECM 693 19	Changes per ECD 024-996554. Add NT6X40FB (NTZZ02HN) note.

The DS512 Network Interface (A/B Cabinet) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS-512 XPM Interface CP	NT6X40FA		2	X+14,X	YF	AP
DS-512 XPM Paddle Board	NT6X40GA		2	X+14,X	YR	AP
# Snap Bushing	P0682727		1	X		AP
Snap Bushing	P0689010		1	X		AP
Fiber Cable Kit	NT6X0251		1	X	YR	AP
Desig. Label (NT6X40FA)	P0729895		2	X+14,X	YF	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
P0682727	MD	P0689010

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The shelf position assignments for a NTZZ37CQ DS512 Network Interface in a dual shelf common control peripheral module in a cabinet (Model A or B) is as follows:

- Upper Module in shelf positions 47 and 33 (X = 33), and
- Lower Module in shelf positions 19 and 05 (X = 05).

- 2) The circuit pack (CP) slot assignments for a NTZZ37CQ DS512 Network Interface in a dual shelf common control peripheral module are as follows:

- Cabinets with ISDN capability
 - CP slot YF=22F and
CP slot YR=22R, or
- Cabinets without ISDN capability
 - CP slot YF=23F and
CP slot YR=23R.

- 3) The NTZZ37CQ contains the NT6X40FA Circuit packs, labels and items for DS512 Network Interface. However, NT6X40FB CP and P0834807 label should be used for new production per EC 024-96554.

The NT6X40FB is backwards compatible with the NT6X40FA. however, the NT6X40FB has an enhanced C-side loop-around diagnostic feature available with XPM05+ software loads. If the NT6X40FA and NT6X40FB are mixed in a module, they must be data- filled as NT6X40FA inorder for diagnostics to pass.

RULES:

- AP 1) When PEC NTZZ37CQ is ordered, these items are provided.

CIPE PCM-30 ENHANCED I/F H/W KIT, UPPER MODULE

PEC CODE: NTZZ37CS

CPC CODE: B0243605

RATING: STD

REPLACES: NTZZ37CJ

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37CS includes the cable assemblies and wiring list to be used for PCM-30 enhanced interface in an equipped upper module, shelf positions 33 and 47, in NTZZ37AA CIPE (Cabinetized International Peripheral Equipment) and in NTZZ37AB Model B CIPE.

REFERENCE DOCUMENTATION: MSRX46AA 01 09

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37CS EMB2-06-ZZ37CS CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 07 17	ECM 693 12	Changes per ET 25629. Introduce the NTZZ37CS.
95 08 28	ECM 693 13	Changes per ECD 024-94906.

The CIPE PCM-30 Enhanced I/F H/W Kit, Upper Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
PCM-30 2x8 PCB Wiring List	NTRX46WA		1	33		AP
PCM-30 (Send) Cable Assy	NTRX4614		2	47,33		AP
PCM-30 (Receive) Cable Assy	NTRX4615		2	47,33		AP
Personality Plate	P0734654		1	33		AP
Personality Plate	P0734655		1	47		AP
Coax PCM-30 PCB KIT	NTRX4656		1	33		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37CS CIPE PCM-30 Enhanced I/F H/W Kit for Upper Module can be assigned in the CIPE to shelf mounting positions 47 and 33.

RULES:

- AP 1) When PEC NTZZ37CS is ordered, these items are provided.

CIPE PCM-30 ENHANCED I/F H/W KIT, LOWER MODULE

PEC CODE: NTZZ37CT

CPC CODE: B0243606

RATING: STD

REPLACES: NTZZ37CK

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37CT includes the cable assemblies and wiring list to be used for PCM-30 enhanced interface in an equipped lower module, shelf positions 05 and 19, in NTZZ37AA CIPE (Cabinetized International Peripheral Equipment) and in NTZZ37AB Model B CIPE.

REFERENCE DOCUMENTATION: MSRX46AA 01 09

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37CT EMB2-06-ZZ37CT CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 07 17	ECM 693 12	Changes per ET 25629. Introduce the NTZZ37CT.
95 08 28	ECM 693 13	Changes per ECD 024-94906.

The CIPE PCM-30 Enhanced I/F H/W Kit, Lower Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
PCM-30 2x8 PCB Wiring List	NTRX46WA		1	05		AP
PCM-30 (Send) Cable Assy	NTRX4614		2	19,05		AP
PCM-30 (Receive) Cable Assy	NTRX4615		2	19,05		AP
Personality Plate	P0734652		1	05		AP
Personality Plate	P0734653		1	19		AP
Coax PCM-30 PCB KIT	NTRX4656		1	05		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37CT CIPE PCM-30 Basic I/F H/W Kit for Lower Module can be assigned in the CIPE to shelf mounting positions 19 and 05.

RULES:

- AP 1) When PEC NTZZ37CT is ordered, these items are provided.

CIPE MODEL B BASIC BULKHEAD COVERPLATE KIT, UPPER MODULE

PEC CODE: NTZZ37CU

CPC CODE: B0249636

RATING: STD

REPLACES: NTZZ37CD

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37CU includes the Bulkhead Coverplates to be used for all applications when the Upper Module is equipped. In shelf positions 47 and 33 of (NTZZ37AC) Model B Cabinet NTRX46CA CIPE Cabinetized International Peripheral Equipment.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI Deniece Land Dept. 3471 (PPK)

MAIN CONTACT: NTI Deniece Land Dept. 3471 (PPK)

NTZZ37CU EMB2-06-ZZ37CU CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 09 12	ECM 704 06	Create for Top CIPE Module.

The CIPE Model B Basic Bulkhead Coverplate Kit, Upper Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Personality Plate	P0734655		1	47		AP
Personality Plate	P0734654		1	33		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37CU CIPE Personality Plate Kit can be assigned in the CIPE, Upper Module, to shelf mounting positions 47 and 33.

RULES:

- AP 1) When PEC NTZZ37CU is ordered, these items are provided.

FRAME LGE/DTE NON-ISDN

PEC CODE: NTZZ41AA

CPC CODE: B0236347

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: ILGE, IDTE
PLGE, PDTEENGINEERING DESCRIPTION: NTZZ41AA is the Building Block for the
NT6X01BA International Common Peripheral
Equipment Frame.

REFERENCE DOCUMENTATION: MS6X01BA 00 45

MARKETS: Applicable markets:

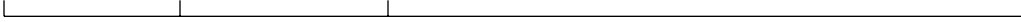
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Deniece Land Dept. 3471 (PPK)

MAIN CONTACT: Deniece Land Dept. 3471 (PPK)

NTZZ41AA EMB2-06-ZZ41AA CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 10	ECM 644 06	Update building block from API-404.
94 02 01	ECM 644 11	Update per ECDs: 011-18052 Introduce XPM+, and 018-41629 MD NT6X02BU, and add
94 03 17	ECM 644 12	Update per ET47593. Clarify Coax panel provisioning location.
94 07 21	ECM 644 14	Add NTZZ41CA. Delete P0745307, which was introduced prematurely.
95 03 30	ECM 644 16	Add NT6X01WK and NT6X01WL to packfill Building Blocks instead of provision- ing them separately.
95 04 03	ECM 644 17	ECD 024-93969.
95 04 24	ECM 644 18	Changes per ECD 024-93026. Introduce NT6X02WF, NT6X02XH, NTMX70AC, and NT6X01XG kits.
95 08 10	ECM 644 20	MD NT6X01ZE.
95 08 24	ECM 644 21	Return NT6X01ZE to STD rating.
95 12 19	ECM 644 23	Add NTNX3601, NT6X01XK, and NT6X01XJ to the NTZZ41AA per ECD 024-94920.
96 02 15	ECM 644 24	Add NT2X70AY Upgrade kit to NTZZ41AA. Remove NT6X01XG from the NTZZ41AA.
		Per ECD 024-95797 NTMX71AA is Replaced by NTMX71BA. NTMX71AA is not MD'd.
		Per ECD 024-95646 add NT6X03DD Upgrade kit. Add NT6X03DE XPM+ Upgrade kit to replace the NT6X02XH Kit. The NTMX70AC is MD'd and has no replacement.
96 04 25	ECM 644 25	Add NT6X78AB CMR card. Introduction of Global Tone Receiver. Solved SR RR62645 to remove NT6X01JH under AP-01 in NT6X01BA section.
96 07 29	ECM 644 26	Per 024-96554 introduce NT6X40FB, (NTZZ02HN) and NT6X40AD (NTZZ02GC). Show NT6X02UF bracket as AP always provided on SL6X01BA. (Remove NT6X02UF from NTZZ41AA. Clarify notes for the NT6X03DD and NT6X03DE kits. Clarify notes for the NT6X01WF wiring note. and NT6X01WA wiring notes per SR's SR65044 and SR67142.
97 03 14	ECM 704 02	Remove all Provisioning Information to EMS NT6X01BA.



The Frame LGE/DTE Non-ISDN is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Int. Frame LGE/DTE Non-ISDN	NT6X01BA		1			AP
Universal Framework	NT0X25AH	FW	1			AP
Universal Ground Point	NT6X0250		1	56R		AP
DC Fan Cooling Unit	NT3X90AC	CU	1	04		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ41AA is ordered, these items are provided.

INTERNATIONAL XPM NON-ISDN 48VDC COMMON CP

PEC CODE: NTZZ41BA

CPC CODE: B0236348

RATING: DEV

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable
ILGC /IDTC

ENGINEERING DESCRIPTION: The NTZZ41BA is a common circuit pack fill used in the dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for Non-ISDN, 48VDC applications in offices with the XPM(MP/SP/FP) feature.

One (1) NTZZ41BA International XPM Non-ISDN 48VDC Common CP includes the following:

- All the items of one (1) NTZZ37BC Int. XPM Non-ISDN 48VDC Common C
- two (2) NT6X42AA Channel Supervisiom Msg CPs, and
- two (2) NT6X28AA PCM-30 Signaling Interface CPs.

REFERENCE DOCUMENTATION: SLZZ41BA 00 02 PAS

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ41BA EMB2-06-ZZ41BA CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 10	ECM 644 06	Update NT6X46BA to NT6X46BB.
94 02 01	ECM 644 11	Correct quantities of NT6X44BB, NT6X45BA and NT0X50AA.
95 03 30	ECM 644 16	Add NT6X01WK Wiring List.
95 04 03	ECM 644 17	ECD 024-93969.

The International XPM Non-ISDN 48VDC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Time Switch CP	NT6X44EA		2	X+14,X	7	AP
CPP Msg Protocol & Dwnld CP	NT6X69LB		2	X+14,X	10	AP
XPM Processor CP	NT6X45BA		2	X+14,X	12	AP
SP Memory Plus CP	NT6X46BB		2	X+14,X	13	AP
XPM Processor CP	NT6X45BA		2	X+14,X	14	AP
Filler Faceplate 0.875	NT0X50AA		2	X+14,X	15	AP
4 MB MP Memory CP	NT6X47AC		2	X+14,X	16	AP
SP Memory Plus CP	NT6X46BB		2	X+14,X	17	AP
XPM Processor CP	NT6X45BA		2	X+14,X	18	AP
PCM 30 SIGNALLING CP	NT6X28AA		2	X+14,X	19	AP
Filler Faceplate 0.875	NT0X50AA		2	X+14,X	20	AP
Channel Supervision Msgs CP	NT6X42AA		2	X+14,X	21	AP
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	22	AP
Filler Faceplate 0.875	NT0X50AA		2	X+14,X	24	AP
Power Conv +/-5V & 12V CP	NT2X70AF		2	X+14,X	25	AP
Desig. Strip (NT6X02BW)	P0709655		2	X+14,X		AP
Desig. Strip (NT6X69LB)	P0733549		2	X+14,X	10	AP
Desig. Label (NT6X46BB)	P0711664		4	X+14,X	13, 17	AP
Desig. Label (NT6X28AA)	P0653635		2	X+14,X	19	AP
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP
Wiring List without XPM+	NT6X01WK		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A NTZZ41BA Common CP can be assigned in a dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for Non-ISDN, 48VDC applications module as follows:
 - In cabinets:
 - Upper module
 - in shelf positions 47 and 33 (X = 33) and,
 - Lower module
 - in shelf positions 19 and 05 (X = 05), or
 - In Frames:
 - Upper module
 - in shelf positions 65 and 51 (X = 51) and,
 - Lower module
 - in shelf positions 32 and 18 (X = 18).

RULES:

- AP 1) When PEC NTZZ41BA is ordered, these items are provided.

COMMON PERIPHERAL EQUIPMENT FRAME

PEC CODE: NTZZ41DA

CPC CODE: B0236350

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: ICPE International Common Peripheral Equipment

ENGINEERING DESCRIPTION: NTZZ41DA is the building block for the NT6X01AC, a general purpose Common Peripheral Controller Equipment Frame for international applications.

REFERENCE DOCUMENTATION: SLZZ41DA 00 03
MS6X01AC 00 15

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Deniece Land Dept. 3471 (PPK)

MAIN CONTACT: Deniece Land Dept. 3471 (PPK)

NTZZ41DA EMB2-06-ZZ41DA CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 20	ECM 643 04	Create this building block.
94 02 01	ECM 643 06	Update per ECD 018-41629: MD NT6X01BU, and
94 03 10	ECM 643 07	add NT6X02UF, NT6X0251, NT6X0250. Replace NT6X02XB XPM Plus ISDN Packfill Change Kit with NT6X02XF per ECD 011-20115.
94 07 22	ECM 643 08	Add NTZZ41CA. Delete P0745307, which was introduced prematurely.
94 12 07	ECM 643 10	Add NT6X02XG and NTMX70AB per EC 011-21135.
95 03 10	ECM 468 07	Correct PCM-30 provisioning for TMS. Correct DCH assignment for TMS. Other miscellaneous changes.
95 04 03	ECM 643 12	NT2X70AF replaces NT2X70AE per EC 024-93969.
95 07 18	ECM 643 14	Add NT6X01XG and NT6X02WF per ECD 024-93910 to NTZZ41DA. Also, Add NT6X01ZE/ZF coax panels.
95 09 18	ECM 468 09	Add ETMS and EDCH.
95 12 11	ECM 643 18	Add NTN3601, NT6X01XK, and NT6X01XJ to the NTZZ41DA per ECD 024-94920. Add NT2X70AY Upgrade Kit to NTZZ41DA. Remove NT6X01XG from the NTZZ41DA.
96 04 26	ECM 643 19	Introduction of GTR, NT6X92EA. Implementation of ECD: 024-95240 to introduce BX01AC/BA and NTB02BA.
96 07 27	ECM 643 20	Per EC 024-96554 Introduce NT6X78AB- Class Modem Resource (CMR) NTZZ97AA, NT6X40FB FIBER DS512 - NTZZ02HN, NT6X40AD NON-FIBER DS30 - NTZZ02GC, REMOVE NT6X01ZE COAX Panel, Show the NT6X02UF Bracket Kit as AP always provided as part of the frame.(Remove NT6X02UF from SLZZ41DA.) The following sections will change per the EC:
96 08 23	ECM 643 21	EMS NT6X01AC, NTZZ41DA, ADD NTMX70AB NTZZ02HN, NTZZ02GC and NTZZ97AA Add abbreviations for module/frame Per BRW PLM correct Abbreviations. All other changes are to correct text format errors. No technical changes.

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 03 14	ECM 704 02	Remove Reference to NTZZ02AD. NOT a product. Remove all the provisioning details to EMS NT6X01AC.

The Common Peripheral Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Int. Frame LGE/DTE ISDN	NT6X01AC		1			AP
DC Cooling Inverter Unit	NT3X90AC		1	04		AP
Universal Framework	NT0X25AH	FW	1			AP
Universal Ground Point	NT6X0250		1	56R		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ41DA is ordered, these items are provided. AP
This PEC is always provided ON THE NTZZ41DA.

INTERNATIONAL XPM ISDN 48VDC COMMON CP

PEC CODE: NTZZ41EA

CPC CODE: B0236352

| RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ41EA is the common circuit pack fill used in the dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for 48VDC applications in equipment with ISDN capability in offices with the XPM(MP/SP) feature.

One (1) NTZZ41EA International XPM ISDN 48VDC Common CP includes the following:

- All the items of
- one (1) NTZZ37BA Int. XPM ISDN 48VDC Common CP, a
- two (2) NT6X28AA PCM-30 Signaling Interface CPs.

REFERENCE DOCUMENTATION: SLZZ41EA 00 02

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ41EA EMB2-06-ZZ41EA CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 01	API 495 01	Create this building block for use in NTRX46CA CIPE per ECD 011-17994.
93 08 20	ECM 643 04	Adapt this building block for NT6X01AC frame.
95 04 04	ECM 643 13	NT2X70AE is replaced by NT2X70AF per EC 024-93969.

The International XPM ISDN 48VDC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	08	AP
4 MB MP Memory CP	NT6X47AC		2	X+14,X	09	AP
Filler Faceplate	NT0X50AA		2	X+14,X	10	AP
SP Memory Plus CP	NT6X46BB		2	X+14,X	11	AP
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	12	AP
Universal Time Switch CP	NT6X44EA		2	X+14,X	14	AP
Msg Prot & Download Tones CP	NT6X69LB		2	X+14,X	18	AP
PCM 30 SIGNALLING CP	NT6X28AA		2	X+14,X	19	AP
Channel Supervision Msgs CP	NT6X42AA		2	X+14,X	20	AP
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	21	AP
Filler Faceplate	NT0X50AA		4	X+14,X	23,24	AP
# Power Converter +-5V 50A CP	NT2X70AE		2	X+14,X	25	AP
Power Converter +-5V 50A CP	NT2X70AF		2	X+14,X	25	AP
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP
Designation Strip	P0741862		2	X+14,X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A NTZZ37EA Common CP can be assigned in a dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for ISDN, 48VDC applications module as follows:

- In cabinets:
 - Upper module
 - in shelf positions 47 and 33 (X = 33) and,
 - Lower module
 - in shelf positions 19 and 05 (X = 05), or
- In Frames:
 - Upper module
 - in shelf positions 65 and 51 (X = 51) and,
 - Lower module
 - in shelf positions 32 and 18 (X = 18).

RULES:

- AP 1) When PEC NTZZ41EA is ordered, these items are provided.

INTERNATIONAL XPM PLUS ISDN 48VDC COMMON CP

PEC CODE: NTZZ43AA

CPC CODE: B0236489

RATING: DEV

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ43AA is a common circuit pack fill used in the dual shelf international XPM Plus (Extended Multiprocessor System Peripheral Module) for 48VDC applications in equipment with ISDN capability in offices with the XPM Plus (UP) feature.

One (1) NTZZ43AA International XPM Plus ISDN 48VDC Common CP includes the following:

- All the items of one (1) NTZZ37BB Int. XPM Plus ISDN 48VDC Common
- two (2) NT6X28AA PCM-30 Signaling Interface CPs.

REFERENCE DOCUMENTATION: SLZZ37BB 00 01 PAS

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ43AA EMB2-06-ZZ43AA CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 20	ECM 643 04	Create this building block.
95 04 04	ECM 643 13	NT2X70AE is replaced by NT2X70AF per EC 024-93969.
95 07 18	ECM 643 14	Changes per ECD 024-93910. Change the of the NTMX71AA CP from 19R to 20R.

The International XPM Plus ISDN 48VDC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplate	NT0X50AA		8	X+14,X	08-11	AP
XPM Plus Processor CP	NTMX77AA		2	X+14,X	12	AP
Universal Time Switch CP	NT6X44EA		2	X+14,X	14	AP
Msg Prot & Download Tones CP	NT6X69LB		2	X+14,X	18	AP
PCM30 Signalling CP	NT6X28AA		2	X+14,X	19	AP
XPM+ Terminator Paddleboard	NTMX71AA		2	X+14,X	20R	AP
Channel Supervision Msgs CP	NT6X42AA		2	X+14,X	20	AP
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	21	AP
Filler Faceplate	NT0X50AA		4	X+14,X	23,24	AP
# Power Converter +-5V 50A CP	NT2X70AE		2	X+14,X	25	AP
Power Converter +-5V 50A CP	NT2X70AF		2	X+14,X	25	AP
Designation Strip	P0741862		2	X+14,X		AP
Desig. Label (NT0X50AA)	P0578498		4	X+14,X	08,09	AP
Desig. Label (NT0X50AA)	P0578498		2	X+14,X	11	AP
Desig. Label (NTMX77AA)	P0735417		2	X+14,X	12	AP
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A NTZZ43AA Common CP can be assigned in a dual shelf international XPM (Extended Multiprocessor System Peripheral Module) for ISDN, 48VDC applications module as follows:

- In cabinets:
 - Upper module
 - in shelf positions 47 and 33 (X = 33) and,
 - Lower module
 - in shelf positions 19 and 05 (X = 05), or
- In Frames:
 - Upper module
 - in shelf positions 65 and 51 (X = 51) and,
 - Lower module
 - in shelf positions 32 and 18 (X = 18).

RULES:

- AP 1) When PEC NTZZ43AA is ordered, these items are provided.

COMMON PERIPHERAL CONTROLLER EQUIPMENT FRAME
UNIVERSAL FRAMEWORK

PEC CODE: NTZZ17AT

CPC CODE: B0238561

RATING: STD

REPLACES: NTZZ17AM, NTZZ17AN, NT6X01AA, NT6X01AB

REPLACED BY: None

ABBREVIATION NAME: CPCE

ENGINEERING DESCRIPTION: The Common Peripheral Controller Equipment Frame with Universal Framework is a standard DMS frame which houses two dual-shelf peripheral controller modules. Each module is housed in two adjacent shelves which are always provided on the frame.

Each pair of shelves contains twenty five circuit pack mounting locations which, when equipped with the appropriate circuit packs, constitute peripheral controller modules for a variety of applications.

Any of the currently supported peripheral controller modules, either ISDN or non-ISDN, may be equipped in the CPCE frame.

REFERENCE DOCUMENTATION: MS6X01AD 00 29

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17AT EMB2-06-004 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 15	ECM 616 10	ET26943 - MD NTZZ17AM and replace with two Building Blocks. EC01118087 - add NTZZ02FB Universal Tone Recv. - Add Enhanced D-Channel Handler (NTZZ17BB) Add XPM+ change kit for DTCI ET25513 - Add SMR change kit and new SMR for field upgrades only
93 07 12	ECM 616 12	Introduce NTZZ17QA/RA/SA for ISDN XPM for LTC/LGC/DTC. Introduce NTZZ17QM/RM/SM for ISDN XPM PLUS for LTC/LGC/DTC.
93 07 26	ECM 328 11	Add UTR on SMS; MX76 on LGC+ and LTC+.
93 09 28	ECM 328 12	Add 16 C-side port capability for SMS; Revise Fiber Interface rules for SMS. Add NTZZ03RA for SMUI with XPM+.
93 10 15	ECM 687 01	Correct TMS provisioning. Introduce the NTZZ04KA to support the DTC XPM PLUS & DWS and also to introduce the NTZZ17TM which supports ISDN XPM PLUS & DWS. These new BBLKs are being introduced to support the introduction of DWS Phase II.
93 11 16	ECM 678 07	Revise rules so code can replace the NTZZ17AN Building Block. Declare NTZZ04HA status MD, replaced by NTZZ04HB.
94 01 07	ECM 678 09	Correct typo per ET 44833.
94 02 28	ECM 676 03	Add BCS-36/MVI SMA packfill. Change framework name to Universal.
94 03 01	ECM 678 10	Add SCM+ packfills and NT6X85BA.
94 04 07	ECM 373 25	Add text in the EM sections to clarify the provisioning of the NT6X78 CMR card in the LTC/LGC. EC01119360 for the NTRX36BA.
94 04 21	ECM 520 01	EC 011-20115 Add NT6X50EC for integrated echo cancellation.
94 05 09	ECM 328 14	Remove SMS+ and SMS-R+ provisioning.
94 06 13	ECM 468 06	Modify rules for EDCH and XPM+ in TMS. Allow DS512 interface from TMS to network.

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 06 30	ECM 678 11	Clarify provisioning by explicitly covering TMS in most rules.
94 07 14	ECM 314 13	Add new SMS+ and SMS-R+ information.
94 08 01	ECM 616 22	Add UTR on SMU capability. Add rules for ADSI/SCWID support.
94 08 12	ECM 616 23	Add NT6X02WB Product Change Kit. Add Building Blocks for ADSI/SCWID.
94 08 26	ECM 314 14	Delete DTCI+ applicability for NTZZ17GH, was typographical error. Extract RUL20 from RUL1 for clarity. Description clarifications.
94 09 06	ECM 616 24	Update per EC 011-20130, adds CP NT6X80BB provisionable on frame, adds new NT6X02EP SMU Packfill and adds new NT6X02WE Product Change Kit
94 09 10	ECM 616 25	Update per EC 011-20130 with NT6X80BB information, MD NTZZ03RA and replace with NTZZ03RB.
94 09 30	ECM 373 32	Update per EC 011-20130 with NT6X80BB information, add NTZZ03RJ SMUI Module and NTZZ03DJ SMU Module information.
94 10 24	ECM 678 15	Update per EC 011-21078 which requires a minimum of two NT6X50 in either shelf of LGC/LTC/DTC modules if ANY NT6X50 CPs are required in that shelf.
94 11 03	ECM 616 27	Update per EC 024-92938 with NT6X85AC and NT6X92BC information. MD the following per EC 024-92942; NTZZ03DA, NTZZ03PA, NTZZ03QA, NTZZ03MA, NTZZ03EA, NTZZ03BB. Answer ET020129 to correct RUL7. Add SMU and SMUI info to RUL11 concerning application of NT6X80BB CP. Add in BBS NTZZ03SA, NTZZ03SB, and NTZZ03SC.
94 11 18	ECM 616 28	Clarify NT6X69 provisioning rules.
94 11 29	ECM 454 09	Add new Building Blocks: NTZZ02PJ, NTZZ02QJ, NTZZ03DK, NTZZ03RK, NTZZ17GJ, NTZZ17QS, and NTZZ17RS.
95 01 31	ECM 373 35	Delete reference to LTC in RUL8. Add new BB NTZZ03MB
		Add new BB NTZZ03EF and NTZZ03BG.
		Delete NT6X85BA per PLM, use NT6X85AC.
		Add new Building Blocks: NTZZ02RA,

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 02 17	ECM 314 18	NTZZ02RB, NTZZ02RC, NTZZ02SA, NTZZ02SB, NTZZ03SD, and NTZZ03SP. Add new BB NTZZ03DM for SMU and add BB NTZZ03SE, NTZZ03SQ, NTZZ03SK, and NTZZ03SJ for SMA.
95 03 16	ECM 616 31	EC 024-93747 adds NT7X05AA (NTZZ02UA). Also adds requirement for a minimum of two circuit packs in slots 1 to 5 of any shelf when ANY circuit packs are required in slots 1 to 5 of that shelf. EC 11-19964 adds NT6X78AB to LGCI, LTCI, and DTCI; and adds NTB02BA to SMUI.
95 04 04	ECM 616 33	Update note on ADSI/SCWID requirement.
95 04 10	ECM 676 09	Add info on new SMA Building Blocks, update rules.
95 05 04	ECM 678 20	Update per EC#024-94170 to provision one NT6X0250 with XPM+ field upgrade module additions. (Added NOTE 7) MD per EC#024-94037 the following SMA Building Blocks; NTZZ03SD, NTZZ03SE, NTZZ03SJ, NTZZ03SK, NTZZ03SP, NTZZ03SQ.
95 05 18	ECM 616 35	Remove SMA as an application for the Peripheral Loader CP NTZZ02UA (NT7X05AA) per PLM.
95 08 17	ECM 678 22	Update per EC#024-94576 introducing NT6X02WG Product Change Kit
95 09 18	ECM 468 09	Add OC ETMS.
95 11 08	ECM 678 24	EC 024-94348 - Shows that NT6X80BB is required for processors using NT6X86AB (XPM+ for example). EC 024-95229 - Emergency EC that makes the NT6X69AD required for all new production and not just for ADSI-SCWID features. As a result, created NTZZ04HD/KD and NTZZ17ST/TT for DTC/DTCI since 6X69AD was not previously required. EC 011-21580 - Introduces NT6X02TJ packfill that has Universal Processor and Enhanced Processor & Terminal PB as provisionable. New BBs are created

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 01 17	ECM 616 42	with new packfill to replace old ones. Also, BBs are created for Universal and Enhanced Processors and Enhanced ISDN Pre-Processor CP. ET 77203-Correct RUL3 to remove the reference to DTCI as a valid module for the CMR card.
96 04 26	ECM 373 45	EC 024-94348 & EC 024-95322 introduces NT6X02YR to convert an SMA module to LGCI/LTCI/DTCI module. Correct flaglist for NTZZ17ST/TT. Update RUL14 to remove XPM+ as being required for ADSI/SCWID features. Introduce the GTR NT6X92EA through NTZZ02FC which will eventually replace all UTRs. SR RR62006 Clarify RUL1 to show 6X69AD is required for BCS36 and above, not BCS36+ and list exceptions that still required NT6X69AC. Show NTZZ97AA, NTZZ02DA & NTZZ03GA MD as part of the Functional Block initiative. EC 024-95240 Introduces NT6X40AD/FB which replace NT6X40AC/FA, respectively. As a result, NTZZ02HN and NTZZ02GC are created. Show NT2X70AY as an orderable item. Clarify that NT6X50AB is required for fiber applications. Show NT6X80BA as MD and replaced by NT6X80BB. Add ETMS to ABBR field of NTZZ17GJ. Show NTZZ03BE as MD since NT6X69AD is used with XPM+ on SMS, not NT6X69AC. The NTB01BA is currently provided in the SMA module level BBs, so remove rule for providing NTZZ03AJ with SMA.
96 09 20	ECM 373 46	Introduce the NTAX74AA (NTZZ03AC) for LTCI, LGCI, and DTCI applications. Clarify the notes for NTB02AA/BA, NT6X40FB/AD, NT6X78AB, NT6X69AD and NT6X44AA per EC024-96600. Add Large Tandem configuration note.

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 11 22	ECM 314 23	Clarify note for the NT6X01WC wiring per SR68097 and notes for NT6X44CA per SR66249. Per SRs RR66644 and RR66892, remove reference to filler plate in CP position 17. Per SR RR60487 add note for E911 apps on SMU. Per SR RR6A617 remove CP location on equipment list for NTRX36NI. Update flaglist per MD EC 24-96637. and 24-96589. Correct RUL3 to remove reference to DTCI as a valid module for the CMR card.
97 01 07	ECM 373 47	Per ECD 024-96637 MDs the NT6X40BA, which MDs the NTZZ02AA.
97 03 11	ECM 714 02	Clarify notes re: NTAX74AA prov, MD SMA per EC 024 97180 /024 97876 Provision NTMX76AB per ECD 024 97290 Clarify notes re SMU and E911 Apps Update flaglist to reflect ZZ03RB as replacement for NTZZ03MB Reflect un-MD of NTZZ17GJ, and the introduction of the NTZZ17GM
97 04 23	ECM 714 04	EC 024 97732 introduces new packfill NT6X02CX for ESMU, and associated upgrade kit. Introduce SMR to SMU and SMS to SMU change kits. New BBs for new packfill NT6X02CX.
97 05 30	ECM 714 05	ECD 024 97867 MDs the NT6X02ES, NTZZ03RK, and NTZZ03RB.
97 08 26	ECM 714 06	Implement ECD 024-98354, which removes NTAX74AA provisioning from Domestic XPM host peripherals, except for DTCI in MCI ACD applications.

The Common Peripheral Controller Equipment Frame Universal Framework is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Common Peripheral Frame	NT6X01AD		1			AP
Universal Framework	NT0X25AH		1			AP
Universal Ground Point (See NOTE 7)	NT6X0250		1			AP
# CPCI+ ADSI/SCWID Common CP (MD'ed)	NTZZ17GH	LGCI+ LTCI+		51		RUL1
# CPCI+ Common CP (MD'ed)	NTZZ17GC	LGCI+ LTCI+ DTCI+ ETMS		51		RUL1
CPCI+ Common CP (BCS-36+)	NTZZ17GJ	LGCI+ LTCI+ DTCI+ ETMS		51		RUL1
TMS/ETMS LTCI+	NTZZ17GM	ETMS		51		RUL1
# CPCI Common CP (XPM)	NTZZ17CA	LGCI LTCI DTCI		51		RUL1
# CPCI Common CP (XPM)	NTZZ17GB	TMS		51		RUL1
# LGCI Common CP (XPM)	NTZZ17RA	LGCI		51		RUL1
# LTCI Common CP (XPM)	NTZZ17QA	LTCI		51		RUL1
# DTCI Common CP (XPM)	NTZZ17SA	DTCI		51		RUL1
# DTCI Common CP (XPM) DWS	NTZZ17DA	DWSI		51		RUL1
LTCI+ (MX77/6X69AC)	NTZZ17QM	LTCI+		51		RUL1
# LTCI+ (AX74/6X69AC)	NTZZ17GK	LTCI+		51		RUL1
LTCI+ (MX77/6X69AD)	NTZZ17QS	LTCI+		51		RUL1
# LTCI+ (AX74/6X69AD)	NTZZ17GL	LTCI+		51		RUL1
DTCI+ (MX77/6X69AC)	NTZZ17SM	DTCI+		51		RUL1
DTCI+ (AX74/6X69AC)	NTZZ17SU	DTCI+		51		RUL1
DTCI+ (MX77/6X69AD)	NTZZ17ST	DTCI+		51		RUL1
DTCI+ (AX74/6X69AD)	NTZZ17SV	DTCI+		51		RUL1
LGCI+ (MX77/6X69AC)	NTZZ17RM	LGCI+		51		RUL1
# LGCI+ (AX74/6X69AC)	NTZZ17TU	LGCI+		51		RUL1
LGCI+ (MX77/6X69AD)	NTZZ17RS	LGCI+		51		RUL1
# LGCI+ (AX74/6X69AD)	NTZZ17TV	LGCI+		51		RUL1
CPCI+ DWS (MX77/6X69AC)	NTZZ17TM	CPCI+		51		RUL1
# CPCI+ DWS (AX74/6X69AC)	NTZZ17TN	CPCI+		51		RUL1
CPCI+ DWS (MX77/6X69AD)	NTZZ17TT	CPCI+		51		RUL1
# CPCI+ DWS (AX74/6X69AD)	NTZZ17TH	CPCI+		51		RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# SMUI Common CP	NTZZ03MA	SMUI		51		RUL1
# SMUI Common CP	NTZZ03MB	SMUI		51		RUL1
# SMUI+ Common CP	NTZZ03RA	SMUI+		51		RUL1
# SMUI+ Common CP	NTZZ03RB	SMUI+		51		RUL1
SMUI+ Common CP	NTZZ03RC	SMUI+		51		RUL1
# SMUI+ Common CP (BCS-36+)	NTZZ03RK	SMUI+		51		RUL1
SMUI+ Common CP (BCS-36+)	NTZZ03RL	SMUI+		51		RUL1
Time Switch CP	NT6X44CA			51	14	RUL1
Enhanced Time Switch	NTAX78AB			51	14	RUL1
# SMUI+ ADSI/SCWID Common CP	NTZZ03RH	SMUI+		51		RUL1
# SMUI+ ADSI/SCWID Common CP	NTZZ03RJ	SMUI+		51		RUL1
LGC Common CP	NTZZ02BA	LGC		51		RUL1
LTC Common CP	NTZZ02CA	LTC		51		RUL1
DTC Common CP	NTZZ04BA	DTC		51		RUL1
DTC w/DWS Common CP	NTZZ04BB	DTC		51		RUL1
# LGC+ Common CP	NTZZ02QA	LGC+		51		RUL1
LGC+ Common CP (BCS-36+)	NTZZ02QJ	LGC+		51		RUL1
LGC+ w/EDC Common CP	NTZZ02QM	LGC+		51		RUL1
LGC+ w/EDC and ADSI/SCWID	NTZZ02QN	LGC+		51		RUL1
# LGC+ ADSI/SCWID Common CP	NTZZ02QH	LGC+		51		RUL1
# LTC+ Common CP	NTZZ02PA	LTC+		51		RUL1
LTC+ Common CP (BCS-36+)	NTZZ02PJ	LTC+		51		RUL1
LTC+ w/EDC Common CP	NTZZ02PM	LTC+		51		RUL1
LTC+ w/EDC and ADSI/SCWID	NTZZ02PN	LTC+		51		RUL1
# LTC+ ADSI/SCWID Common CP	NTZZ02PH	LTC+		51		RUL1
# DTC+ Common CP	NTZZ04HA	DTC+		51		RUL1
# DTC+ Common CP	NTZZ04HB	DTC+		51		RUL1
DTC+ Common CP	NTZZ04HD	DTC+		51		RUL1
# DTC+ w/DWS Common CP	NTZZ04KA	DTC+		51		RUL1
DTC+ w/DWS Common CP	NTZZ04KD	DTC+		51		RUL1
# SMA Common CP	NTZZ03PA	SMA		51		RUL1
# SMA Common CP	NTZZ03SA	SMA		51		RUL1
# SMA Common CP (BCS-35)	NTZZ03SP	SMA		51		RUL1
# SMA Common CP (BCS-35)	NTZZ03SQ	SMA		51		RUL1
# SMA Common CP (BCS-35)	NTZZ03ST	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03QA	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SJ	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SK	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SR	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SS	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SB	SMA		51		RUL1
# SMA Common CP (NA003)	NTZZ03SC	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SD	SMA		51		RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# SMA Common CP (BCS-36/MVI)	NTZZ03SE	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SV	SMA		51		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SW	SMA		51		RUL1
# SMS Common CP	NTZZ03BB	SMS		51		RUL1
SMS Common CP	NTZZ03BG	SMS		51		RUL1
# SMS+ Common CP	NTZZ03BE	SMS+		51		RUL1
SMS+ Common CP (BCS-36+)	NTZZ03BS	SMS+		51		RUL1
# SMS+ ADSI/SCWID Common CP	NTZZ03BR	SMS+		51		RUL1
# SMS-R Common CP	NTZZ03EA	SMS-R		51		RUL1
SMS-R Common CP	NTZZ03EF	SMS-R		51		RUL1
SMS-R+ Common CP	NTZZ03ED	SMS-R+		51		RUL1
# SMR Common CP	NTZZ03CA	SMR		51		RUL1
# SMR Common CP	NT6X02CT	SMR		51		RUL1
# SMU Common CP	NTZZ03DA	SMU		51		RUL1
SMU Common CP	NTZZ03DM	SMU		51		RUL1
# SMU+ Common CP	NTZZ03DB	SMU+		51		RUL1
# SMU+ Common CP	NTZZ03DE	SMU+		51		RUL1
SMU+ Common CP (BCS-36+)	NTZZ03DK	SMU+		51		RUL1
# SMU+ ADSI/SCWID Common CP	NTZZ03DH	SMU+		51		RUL1
# SMU+ ADSI/SCWID Common CP	NTZZ03DJ	SMU+		51		RUL1
CPC Filler Face Plate	NT6X02AB			51		RUL1
Controller Array Shf Assy	NT6X0223	CPAI	2	65,51		AP01
# Signal Processor Memory	NT6X46BA		2	65,51	11	NOTE1
Signal Processor Memory	NT6X46BB		2	65,51	11	NOTE1
# 2 DS-1 P-Side EFF Interfaces	NTZZ02DA			65,51	1-5	RUL2
DS-1 EFF Interface CP	NT6X50AB			65,51	1-5	RUL2
Des. Label (NT6X50AB)	P0690976			65,51	1-5	RUL2
# 2 DS-1 P-Side Interfaces	NTZZ03GA			65,51	1-5	RUL2
DS-1 Interface CP	NT6X50AA			65,51	1-5	RUL2
Des. Label (NT6X50AA)	P0626878			65,51	1-5	RUL2
# D-Channel Handler (DCH)	NTZZ17BA			65,51	1-5	RUL9
Enhanced D-Channel Handler	NTZZ17BB			65,51	1-5	RUL9
2 SCM DS-1 Interfaces	NTZZ03FA			65,51	1-5	RUL2
DS-1 Interface CP	NT6X85AC			65,51	1-5	RUL2
Desig. Label for NT6X85AC	P0801996			65,51	1-5	RUL2
DS-1 P-Side Echo Cancel.	NT6X50EC			65,51	1-5	RUL2
Designation Label-NT6X50EC	P0731675			65,51	1-5	RUL2
10 DS30A LCM Interfaces	NTZZ02KA			51	6,7	RUL7
Unified Processor	NTZZ03AB			51	12	RUL23
Enhanced Processor	NTZZ03AC			51	12	RUL23
Continuity Tone Detector	NTZZ04CA			51	13	RUL8
Enhanced ISDN Pre-Processor	NTZZ03AJ			51	16	RUL24
CLASS Modem Resource CP	NTZZ02EA			51	13,16, 17	RUL3

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# CLASS Modem Resource CP	NTZZ97AA			51	13, 16, 17	RUL3
Peripheral Loader CP	NTZZ02UA			51	15, 17	RUL22
# 30 Universal Tone Rcvr Ccts	NTZZ02FA			51	15, 16	RUL4
# 30 Universal Tone Rcvr Ccts	NTZZ02FB			51	15, 16	RUL4
# 30 Universal Tone Rcvr(SMS)	NTZZ02FA			51	17	RUL4
# 30 Universal Tone Rcvr(SMS)	NTZZ02FB			51	17	RUL4
30 Global Tone Rcvr Ccts	NTZZ02FC			51	15, 16	RUL4
30 Global Tone Rcvr Ccts(SMS)	NTZZ02FC			51	17	RUL4
Filler Plate	NT0X50AA			51	17	RUL4
Msg Protocol Ckt	NTZZ02RA			51	18	RUL18
Msg Protocol Ckt, ADSI/SCWID	NTZZ02RB			51	18	RUL18
Msg Protocol Ckt, HDLC	NTZZ02RC			51	18	RUL14
Msg Protocol Ckt, HDLC	NTZZ02RD			51	18	RUL14
# Ring/Pad Ckt	NTZZ02SA			51	19	RUL11
# Ring/Pad Ckt	NT6X80BA			51	19	RUL11
# Desig. Label for NT6X80BA	P0707642			51	19	RUL11
Ring/Pad Ckt, Freq Sel Ring	NTZZ02SB			51	19	RUL11
Specialized Tone Rcvr	NT6X62AA		2	65, 51	16	RUL13
Specialized Tone Rcvr	NT6X62AB		2	65, 51	16	RUL13
# DS30 Network Interface CP	NTZZ02GA			51	22	RUL5
DS30 Network Interface CP	NTZZ02GC			51	22	RUL5
# DS30 Network Interface CP	NTZZ02AA			51	22	RUL5
# DS512 Network Interface CP	NTZZ02HM			51	22	RUL5
DS512 Network Interface CP	NTZZ02HN			51	22	RUL5
Universal Connector Bracket	NT6X02UF		1	51	22R	AP
NT2X70AF Upgrade Kit	NT2X70AY			51		RUL26
Wiring Strap Option	NT6X01WC		1			RUL12
Jumper Kit for Base	NTRX36NI		1	65, 51		RUL15
Filler Face Plate 0.875	NT0X50AA			65, 51		RUL6
Frame Supervisory Panel	NT0X28EB	FSP	1	45		AP01
# CPCI+ ADSI/SCWID Common CP (MD'ed)	NTZZ17GH	LGCI+ LTCI+		18		RUL1
# CPCI+ Common CP (MD'ed)	NTZZ17GC	LGCI+ LTCI+ DTCI+ ETMS		18		RUL1
CPCI+ Common CP (BCS-36+)	NTZZ17GJ	LGCI+ LTCI+		18		RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TMS/ETMS LTCI+	NTZZ17GM	DTCI+ ETMS ETMS		51		RUL1
# CPCI Common CP (XPM)	NTZZ17CA	LGCI LTCI DTCI		18		RUL1
# CPCI Common CP (XPM)	NTZZ17GB	TMS		18		RUL1
# LGCI Common CP (XPM)	NTZZ17RA	LGCI		18		RUL1
# LTCI Common CP (XPM)	NTZZ17QA	LTCI		18		RUL1
# DTCI Common CP (XPM)	NTZZ17SA	DTCI		18		RUL1
# DTCI Common CP (XPM) DWS	NTZZ17DA	DWSI		18		RUL1
LTCI+ (MX77/6X69AC)	NTZZ17QM	LTCI+		18		RUL1
# LTCI+ (AX74/6X69AC)	NTZZ17GK	LTCI+		18		RUL1
LTCI+ (MX77/6X69AD)	NTZZ17QS	LTCI+		18		RUL1
# LTCI+ (AX74/6X69AD)	NTZZ17GL	LTCI+		18		RUL1
DTCI+ (MX77/6X69AC)	NTZZ17SM	DTCI+		18		RUL1
DTCI+ (AX74/6X69AC)	NTZZ17SU	DTCI+		18		RUL1
DTCI+ (MX77/6X69AD)	NTZZ17ST	DTCI+		18		RUL1
DTCI+ (AX74/6X69AD)	NTZZ17SV	DTCI+		18		RUL1
LGCI+ (MX77/6X69AC)	NTZZ17RM	LGCI+		18		RUL1
# LGCI+ (AX74/6X69AC)	NTZZ17TU	LGCI+		18		RUL1
LGCI+ (MX77/6X69AD)	NTZZ17RS	LGCI+		18		RUL1
# LGCI+ (AX74/6X69AD)	NTZZ17TV	LGCI+		18		RUL1
CPCI+ DWS (MX77/6X69AC)	NTZZ17TM	CPCI+		18		RUL1
# CPCI+ DWS (AX74/6X69AC)	NTZZ17TN	CPCI+		18		RUL1
CPCI+ DWS (MX77/6X69AD)	NTZZ17TT	CPCI+		18		RUL1
# CPCI+ DWS (AX74/6X69AD)	NTZZ17TH	CPCI+		18		RUL1
# SMUI Common CP	NTZZ03MA	SMUI		18		RUL1
# SMUI Common CP	NTZZ03MB	SMUI		18		RUL1
# SMUI+ Common CP	NTZZ03RA	SMUI+		18		RUL1
# SMUI+ Common CP	NTZZ03RB	SMUI+		18		RUL1
SMUI+ Common CP	NTZZ03RC	SMUI+		18		RUL1
# SMUI+ Common CP (BCS-36+)	NTZZ03RK	SMUI+		18		RUL1
SMUI+ Common CP (BCS-36+)	NTZZ03RL	SMUI+		18		RUL1
Time Switch CP	NT6X44CA			18	14	RUL1
Enhanced Time Switch	NTAX78AB			18	14	RUL1
# SMUI+ ADSI/SCWID Common CP	NTZZ03RH	SMUI+		18		RUL1
# SMUI+ ADSI/SCWID Common CP	NTZZ03RJ	SMUI+		18		RUL1
LGC Common CP	NTZZ02BA	LGC		18		RUL1
LTC Common CP	NTZZ02CA	LTC		18		RUL1
DTC Common CP	NTZZ04BA	DTC		18		RUL1
DTC w/DWS Common CP	NTZZ04BB	DTC		18		RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# LGC+ Common CP	NTZZ02QA	LGC+		18		RUL1
LGC+ Common CP (BCS-36+)	NTZZ02QJ	LGC+		18		RUL1
LGC+ w/EDC Common CP	NTZZ02QM	LGC+		18		RUL1
LGC+ w/EDC and ADSI/SCWID	NTZZ02QN	LGC+		18		RUL1
# LGC+ ADSI/SCWID Common CP	NTZZ02QH	LGC+		18		RUL1
# LTC+ Common CP	NTZZ02PA	LTC+		18		RUL1
LTC+ Common CP (BCS-36+)	NTZZ02PJ	LTC+		18		RUL1
LTC+ w/EDC Common CP	NTZZ02PM	LTC+		18		RUL1
LTC+ w/EDC and ADSI/SCWID	NTZZ02PN	LTC+		18		RUL1
# LTC+ ADSI/SCWID Common CP	NTZZ02PH	LTC+		18		RUL1
# DTC+ Common CP	NTZZ04HA	DTC+		18		RUL1
# DTC+ Common CP	NTZZ04HB	DTC+		18		RUL1
DTC+ Common CP	NTZZ04HD	DTC+		18		RUL1
# DTC+ w/DWS Common CP	NTZZ04KA	DTC+		18		RUL1
DTC+ w/DWS Common CP	NTZZ04KD	DTC+		18		RUL1
# SMA Common CP	NTZZ03PA	SMA		18		RUL1
# SMA Common CP	NTZZ03SA	SMA		18		RUL1
# SMA Common CP (BCS-35)	NTZZ03SP	SMA		18		RUL1
# SMA Common CP (BCS-35)	NTZZ03SQ	SMA		18		RUL1
# SMA Common CP (BCS-35)	NTZZ03ST	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03QA	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SJ	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SK	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SR	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SS	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SB	SMA		18		RUL1
# SMA Common CP (NA003)	NTZZ03SC	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SD	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SE	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SV	SMA		18		RUL1
# SMA Common CP (BCS-36/MVI)	NTZZ03SW	SMA		18		RUL1
# SMS Common CP	NTZZ03BB	SMS		18		RUL1
SMS Common CP	NTZZ03BG	SMS		18		RUL1
# SMS+ Common CP	NTZZ03BE	SMS+		18		RUL1
SMS+ Common CP (BCS-36+)	NTZZ03BS	SMS+		18		RUL1
# SMS+ ADSI/SCWID Common CP	NTZZ03BR	SMS+		18		RUL1
# SMS-R Common CP	NTZZ03EA	SMS-R		18		RUL1
SMS-R Common CP	NTZZ03EF	SMS-R		18		RUL1
SMS-R+ Common CP	NTZZ03ED	SMS-R+		18		RUL1
# SMR Common CP	NTZZ03CA	SMR		18		RUL1
# SMR Common CP	NT6X02CT	SMR		18		RUL1
# SMU Common CP	NTZZ03DA	SMU		18		RUL1
SMU Common CP	NTZZ03DM	SMU		18		RUL1
# SMU+ Common CP	NTZZ03DB	SMU+		18		RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# SMU+ Common CP	NTZZ03DE	SMU+		18		RUL1
SMU+ Common CP (BCS-36+)	NTZZ03DK	SMU+		18		RUL1
# SMU+ ADSI/SCWID Common CP	NTZZ03DH	SMU+		18		RUL1
# SMU+ ADSI/SCWID Common CP	NTZZ03DJ	SMU+		18		RUL1
Controller Array Shf Assy	NT6X0223	CPAI	2	32,18		AP01
# Signal Processor Memory	NT6X46BA		2	32,18	11	NOTE1
Signal Processor Memory	NT6X46BB		2	32,18	11	NOTE1
# 2 DS-1 P-Side EFF Interfaces	NTZZ02DA			32,18	1-5	RUL2
DS-1 EFF Interface CP	NT6X50AB			32,18	1-5	RUL2
Des. Label (NT6X50AB)	P0690976			32,18	1-5	RUL2
# 2 DS-1 P-Side Interfaces	NTZZ03GA			32,18	1-5	RUL2
DS-1 Interface CP	NT6X50AA			32,18	1-5	RUL2
Des. Label (NT6X50AA)	P0626878			32,18	1-5	RUL2
# D-Channel Handler (DCH)	NTZZ17BA			32,18	1-5	RUL9
Enhanced D-Channel Handler	NTZZ17BB			32,18	1-5	RUL9
2 SCM DS-1 Interfaces	NTZZ03FA			32,18	1-5	RUL2
DS-1 Interface CP	NT6X85AC			32,18	1-5	RUL2
Desig. Label for NT6X85AC	P0801996			32,18	1-5	RUL2
DS-1 P-Side Echo Cancel.	NT6X50EC			32,18	1-5	RUL2
Designation Label-NT6X50EC	P0731675			32,18	1-5	RUL2
10 DS30A LCM Interfaces	NTZZ02KA			18	6,7	RUL7
Unified Processor	NTZZ03AB			18	12	RUL23
Enhanced Processor	NTZZ03AC			18	12	RUL23
Continuity Tone Detector	NTZZ04CA			18	13	RUL8
Enhanced ISDN Pre-Processor	NTZZ03AJ			18	16	RUL24
CLASS Modem Resource CP	NTZZ02EA			18	13,16, 17	RUL3
# CLASS Modem Resource CP	NTZZ97AA			18	13,16, 17	RUL3
Peripheral Loader CP	NTZZ02UA			18	15,17	RUL22
# 30 Universal Tone Rcvr Ccts	NTZZ02FA			18	15,16	RUL4
# 30 Universal Tone Rcvr Ccts	NTZZ02FB			18	15,16	RUL4
# 30 Universal Tone Rcvr(SMS)	NTZZ02FA			18	17	RUL4
# 30 Universal Tone Rcvr(SMS)	NTZZ02FB			18	17	RUL4
30 Global Tone Rcvr Ccts	NTZZ02FC			18	15,16	RUL4
30 Global Tone Rcvr Ccts(SMS)	NTZZ02FC			18	17	RUL4
Filler Plate	NT0X50AA			18	17	RUL4
Msg Protocol Ckt	NTZZ02RA			18	18	RUL18
Msg Protocol Ckt, ADSI/SCWID	NTZZ02RB			18	18	RUL18
Msg Protocol Ckt, HDLC	NTZZ02RC			18	18	RUL14
Msg Protocol Ckt, HDLC	NTZZ02RD			18	18	RUL14
# Ring/Pad Ckt	NTZZ02SA			18	19	RUL11

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Ring/Pad Ckt	NT6X80BA			18	19	RUL11
# Desig. Label for NT6X80BA	P0707642			18	19	RUL11
Ring/Pad Ckt, Freq Sel Ring	NTZZ02SB			18	19	RUL11
Specialized Tone Rcvr	NT6X62AA		2	32,18	16	RUL13
Specialized Tone Rcvr	NT6X62AB		2	32,18	16	RUL13
# DS30 Network Interface CP	NTZZ02GA			18	22	RUL5
DS30 Network Interface CP	NTZZ02GC			18	22	RUL5
# DS30 Network Interface CP	NTZZ02AA			18	22	RUL5
# 2 DS-1 P-Side EFF Interfaces	NTZZ02DA			32,18	1-5	RUL2
DS-1 EFF Interface CP	NT6X50AB			32,18	1-5	RUL2
Des. Label (NT6X50AB)	P0690976			32,18	1-5	RUL2
# 2 DS-1 P-Side Interfaces	NTZZ03GA			32,18	1-5	RUL2
DS-1 Interface CP	NT6X50AA			32,18	1-5	RUL2
Des. Label (NT6X50AA)	P0626878			32,18	1-5	RUL2
# D-Channel Handler (DCH)	NTZZ17BA			32,18	1-5	RUL9
Enhanced D-Channel Handler	NTZZ17BB			32,18	1-5	RUL9
2 SCM DS-1 Interfaces	NTZZ03FA			32,18	1-5	RUL2
DS-1 Interface CP	NT6X85AC			32,18	1-5	RUL2
Desig. Label for NT6X85AC	P0801996			32,18	1-5	RUL2
DS-1 P-Side Echo Cancel.	NT6X50EC			32,18	1-5	RUL2
Designation Label-NT6X50EC	P0731675			32,18	1-5	RUL2
10 DS30A LCM Interfaces	NTZZ02KA			18	6,7	RUL7
Unified Processor	NTZZ03AB			18	12	RUL23
Enhanced Processor	NTZZ03AC			18	12	RUL23
Continuity Tone Detector	NTZZ04CA			18	13	RUL8
Enhanced ISDN Pre-Processor	NTZZ03AJ			18	16	RUL24
CLASS Modem Resource CP	NTZZ02EA			18	13,16, 17	RUL3
# CLASS Modem Resource CP	NTZZ97AA			18	13,16, 17	RUL3
Peripheral Loader CP	NTZZ02UA			18	15,17	RUL22
# 30 Universal Tone Rcvr Ccts	NTZZ02FA			18	15,16	RUL4
# 30 Universal Tone Rcvr Ccts	NTZZ02FB			18	15,16	RUL4
# 30 Universal Tone Rcvr(SMS)	NTZZ02FA			18	17	RUL4
# 30 Universal Tone Rcvr(SMS)	NTZZ02FB			18	17	RUL4
30 Global Tone Rcvr Ccts	NTZZ02FC			18	15,16	RUL4
30 Global Tone Rcvr Ccts(SMS)	NTZZ02FC			18	17	RUL4
Filler Plate	NT0X50AA			18	17	RUL4
Msg Protocol Ckt	NTZZ02RA			18	18	RUL18
Msg Protocol Ckt, ADSI/SCWID	NTZZ02RB			18	18	RUL18
Msg Protocol Ckt, HDLC	NTZZ02RC			18	18	RUL14
# Ring/Pad Ckt	NTZZ02SA			18	19	RUL11

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Ring/Pad Ckt	NT6X80BA			18	19	RUL11
# Desig. Label for NT6X80BA	P0707642			18	19	RUL11
Ring/Pad Ckt, Freq Sel Ring	NTZZ02SB			18	19	RUL11
Specialized Tone Rcvr	NT6X62AA		2	32,18	16	RUL13
Specialized Tone Rcvr	NT6X62AB		2	32,18	16	RUL13
# DS30 Network Interface CP	NTZZ02GA			18	22	RUL5
DS30 Network Interface CP	NTZZ02GC			18	22	RUL5
# DS30 Network Interface CP	NTZZ02AA			18	22	RUL5
# DS512 Network Interface CP	NTZZ02HM			18	22	RUL5
DS512 Network Interface CP	NTZZ02HN			18	22	RUL5
Universal Connector Bracket	NT6X02UF		1	18	22R	AP
NT2X70AF Upgrade Kit	NT2X70AY			18		RUL26
Product Change Kit (DWS)	NTZZ99AM		1	18,51		RUL20
NT6X80BB Product Change Kit	NT6X02WE		1	18,51		RUL21
XPM to XPM+ Change Kit	NTZZ99AN		1	18,51		RUL19
NT6X86AB Change Kit	NT6X02WC		1	18,51		RUL16
NT6X80BB/86AB Change Kit	NT6X02WG		1	18,51		RUL16
NT6X69AD Change Kit	NT6X02WB		1	18,51		RUL17
SMA to ISDN Change Kit	NT6X02YR		1	18,51		RUL25
NTAX78AB Upgrade Kit	NT6X02CY		1	18		RUL27
SMR to SMU Kit	NT6X02YA		1	18		RUL28
SMR to SMS Kit	NT6X02YB		1	18		RUL29
Filler Face Plate 0.875	NT0X50AA			32,18		RUL6
Wiring Strap Option	NT6X01WC		1			RUL12
Jumper Kit for Base	NTRX36NI		1	32,18		RUL15
DC Cooling Inverter Unit	NT3X90AC	CU	1	04		AP
Logic Return Cable Assy	NT0X0009					RUL10

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ03CA	MD	None
NT6X02CT	MD	None
NTZZ04HA	MD	NTZZ04HB
NTZZ03DB	MD	NTZZ03DE
NTZZ03RA	MD	NTZZ03RB
NTZZ03DH	MD	NTZZ03DJ
NTZZ02QH	MD	NTZZ02QJ
NTZZ03BR	MD	NTZZ03BS
NTZZ03DJ	MD	NTZZ03DK
NTZZ02PH	MD	NTZZ02PJ
NTZZ03RH	MD	NTZZ03RJ
NTZZ03RJ	MD	NTZZ03RK
NTZZ17GH	MD	NTZZ17GJ
NTZZ17QR	MD	NTZZ17QS
NTZZ17RR	MD	NTZZ17RS
NT6X46BA	MD	NT6X46BB
NT6X80AA	MD	NT6X80BB
NT6X80BA	A&M	NT6X80BB
NTZZ03DA	MD	NTZZ03DM
NTZZ03PA	MD	NTZZ03SA
NTZZ03QA	MD	NTZZ03SB
NTZZ03SA	MD	NTZZ03SP
NTZZ03SB	MD	NTZZ03SJ
NTZZ03SC	MD	NTZZ03SD
NTZZ03MA	MD	NTZZ03MB
NTZZ03MB	MD	NTZZ03RK
NTZZ03EA	MD	NTZZ03EF
NTZZ03BB	MD	NTZZ03BG
NTZZ03SD	MD	NTZZ03SV
NTZZ03SE	MD	NTZZ03SV
NTZZ03SJ	MD	NTZZ03SR
NTZZ03SK	MD	NTZZ03SR
NTZZ03SP	MD	NTZZ03ST
NTZZ03SQ	MD	NTZZ03ST
NTZZ04HB	STD*	NTZZ04HD
NTZZ04KA	STD*	NTZZ04KD
NTZZ17SM	STD*	NTZZ17ST
NTZZ02PA	STD*	NTZZ02PJ
NTZZ02QA	STD*	NTZZ02QJ
NTZZ03BE	MD	NTZZ03BS
NTZZ03DE	STD*	NTZZ03DK
NTZZ17RM	STD*	NTZZ17RS
NTZZ17QM	STD*	NTZZ17QS

PEC	RATING	REPLACED BY PEC
NTZZ03SR	MD	NTZZ03SS
NTZZ03ST	MD	None
NTZZ03SV	MD	NTZZ03SW
NTZZ97AA	MD	NTZZ02EA
NT6X80BA	MD	NTZZ02SB
P0707642	MD	NTZZ02SB
NTZZ02AA	MD	NTZZ02GA
NTZZ02DA	MD	NT6X50AB
NTZZ02SA	MD	NTZZ02SB
NTZZ03GA	MD	NT6X50AA
NTZZ02FA	MD	NTZZ02FB
NTZZ02FB	STD*	NTZZ02FC
NTZZ02GA	STD*	NTZZ02GC
NTZZ02HM	STD*	NTZZ02HN
NTZZ17BA	MD	NTZZ17BB
NTZZ17CA	MD	NTZZ17RM or NTZZ17QM or NTZZ17SM or
NTZZ17DA	MD	NTZZ17TM
NTZZ17GB	MD	NONE
NTZZ17GC	MD	NONE
NTZZ17GK	MD	None
NTZZ17GL	MD	None
NTZZ17QA	MD	NTZZ17QM
NTZZ17RA	MD	NTZZ17RM
NTZZ17TH	MD	None
NTZZ17TN	MD	None
NTZZ17TU	MD	None
NTZZ17TV	MD	None
NTZZ03RB	MD	NTZZ03RC
NTZZ03RK	MD	NTZZ03RL

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

* Rate change pending. Check product availability

NOTES:

- 1) For DMS-250 applications, the NT6X46BB cards can not be used with the NT6X62AB in the NT6X02AI/ID/LE modules (which are all at MD status).
- 2) NTZZ17AT is an ISDN-ready Common Peripheral Controller Equipment Frame which may be equipped to house the following module types: Line Group Controller (LGC), Digital Trunk Controller (DTC), Line Trunk Controller (LTC), Subscriber Module for SLC-96 (SMS), Subscriber Module AccessNode (SMA), Subscriber Module Urban (SMU), Subscriber Module-100S Remote (SMS-R), ISDN Line Group Controller (LGCI), ISDN Digital Trunk Controller (DTCI), ISDN Line Trunk Controller (LTCI), ISDN Subscriber Module Urban (SMUI), TOPS Message Switch (TMS). Each of these modules are housed in two adjacent shelves (i.e., a pair of shelves on positions 65 and 51 and a pair of shelves on positions 32 and 18).
- 3) Nine distinct functional names are associated with this hardware:
 - a) "Line Group Equipment", (LGE) defines the intended function where the frame is configured specifically to house LGC.
 - b) "Digital Trunk Equipment", (DTE) defines the intended function where the frame is configured specifically to house DTC. A toll office requires only DTE frames.
 - c) "Line Trunk Equipment", (LTE) defines the intended function where the frame is configured specifically to house LTC.
 - d) "Subscriber Module Equipment", (SME) defines the intended function where the frame is configured specifically to house SMR, SMS, SMU, SMA or SMS-R.
 - e) "ISDN Line Group Equipment", (LGEI) defines the intended function where the frame is configured specifically to house LGCI.

f) "ISDN Digital Trunk Equipment", (DTEI) defines the intended function where the frame is configured specifically to house DTCI.

g) "ISDN Line Trunk Equipment", (LTEI) defines the intended function where the frame is configured specifically to house LTCI.

h) "ISDN Subscriber Module Equipment", (SMEI) defines the intended function where the frame is configured specifically to house SMUI or SMA.

i) "TOPS Message Switch", (TMS).

** In a very small office or in an office where it is desirable to save the last frame, one (1) LGC, DTC, LTC, SCM, LGCI, DTCI, LTCI, SMUI, or TMS module may also be combined in this configuration on the upper side of the frame (i.e., second module on the frame). The frame name will be derived from the bottom module within the frame (i.e., first one assigned).

- 4) Support for the Analog Display Services Interface (ADSI) and the Spontaneous Call Waiting ID (SCWID) feature of BCS-36+ requires NT6X78 Class Modem Resource (CMR) CPs, NT6X92 Universal Tone Receiver (UTR) CPs or Global Tone Receiver (GTR), and the NT6X69AD Message Protocol and Tone CPs. ADSI and SCWID are line features and are not applicable to DTC modules. The Building Blocks identified as "minimum BCS-36+" are equipped with NT6X69AD CPs for these features. The NT6X69AD cannot be used in DMS-10 applications, SMSR applications, or SMS with MP/SP with XPM03 or lower software loads. SMS supports NT6X69AD with XPM+ with BCS36 and later. In the case of the SMS-R+ module, there is no additional Building Block because the necessary CPs to support the ADSI/SCWID feature must be provided in the Remote Switching Center (RSC) which is hosting the SMS-R, rather than in the SMS-R module itself.
- 5) The NT6X80BB replaces the NT6X80BA in SMU and SMUI modules, and is required in modules equipped with NT6X02EP or ET (SMU) or NT6X02ES or NT6X02CX (SMUI) packfills. The NT6X80BB will eventually replace the NT6X80BA in SMA modules and is required in SMS and SMS-R modules with XPM+ or

later version of processor that uses the NT6X86AB A-Bit Message CP.

- 6) If ANY circuit packs are required in slots 1 through 5 of either shelf of a module equipped on this frame, then a total of at least two circuit packs must be provisioned in slots 1 through 5 on that shelf. This applies to NT6X85AC and NT6X50EC provided per RUL2; as well as the Building Blocks NTZZ02DA, NTZZ03GA, and NTZZ03FA, which each contain one circuit pack. This also applies to the NTZZ17BB Building Block provided per RUL9, which contains one circuit pack. Provide one additional circuit pack, per shelf, if necessary to meet this requirement. Customer engineering to specify the total number of circuit packs of each type required.

If NO circuit packs are required by the application of both RUL2 and RUL9, then this restriction has no effect.

- 7) Provide one (1) NT6X0250 Ground Point when adding an XPM module to an existing frame (field upgrade) IF no Ground Point exists. The Ground Point is now AP with this Building Block, but some early NT6X01AD frames may not have this Ground Point installed. Only ONE Ground Point is needed per frame, and may also have been provided with a fiber upgrade. If the job database does not show the Ground Point as assigned miscellaneous to the frame which is adding a module or getting fiber upgrade, Equipment Application Engineering shall provide one per frame and contact the System Application Engineer to update the office records. The Ground Point is required for proper grounding of maintenance personnel when working on the rear of the frame.
- 8) The Large Tandem configuration of DMS-200 (NOT DMS-100/200) and DMS-250 systems are those which support more than 140 DTC's and/or more than 40,000 ISUP trunks. The DMS Large Tandem differs from the basic products mainly in the larger number of DTC's and ISUP trunks that are supported. Refer to the DMS Large Tandem ECM 598 while engineering offices in those larger configurations.
- 9) For SMUs supporting LDTPSAPS (Line Appear on Digital Trunks, Public Service Answering Point) (E911 service) must remain dedicated only to LDTPSAPS to ensure priority service to E911. Due to this consideration, SMUs with LDTs will NOT allow NT6X92BB/BC/EA (UTR/GTR) to be datafilled. An SMU cannot support E911PSAP and DMS1-U simultaneously.

RULES:

- AP 1) When PEC NTZZ17AT is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X01AD Frame, and is shown here for completeness.
- RUL1 1) The following controller modules may be mounted on the NTZZ17AT CPCE Frame. Provide one appropriate common circuit pack set (packfill) to equip one peripheral controller module (both shelves). Additional circuit packs may also be required, depending on module type and customer requirements.

MODULE TYPE	COMMON CP
# SMA	NTZZ03PA
# SMA	NTZZ03QA
# SMA	NTZZ03SJ
# SMA	NTZZ03SK
# SMA	NTZZ03SR
# SMA	NTZZ03SS
# SMA	NTZZ03SA
# SMA, AccessNode Interface	NTZZ03SP (minimum BCS-35)
# SMA, AccessNode Interface	NTZZ03SQ (minimum BCS-35)
# SMA, AccessNode Interface	NTZZ03ST (minimum BCS-35)
# SMA	NTZZ03SB
# SMA	NTZZ03SC
# SMA, MVI	NTZZ03SD (minimum BCS-36)
# SMA, MVI	NTZZ03SE (minimum BCS-36)
# SMA, MVI	NTZZ03SV (minimum BCS-36)
# SMA, MVI	NTZZ03SW (minimum BCS-36)
# SMS	NTZZ03BB
SMS	NTZZ03BG
# SMS+	NTZZ03BE
# SMS+, ADSI/SCWID	NTZZ03BR
SMS+	NTZZ03BS (minimum BCS-36+)
# SMR	NTZZ03CA
# SMR	NT6X02CT (via upgrade only)
# SMU	NTZZ03DA
SMU	NTZZ03DM
# SMU+	NTZZ03DB
SMU+	NTZZ03DE
# SMU+, ADSI/SCWID	NTZZ03DH
# SMU+, ADSI/SCWID	NTZZ03DJ
SMU+	NTZZ03DK (minimum BCS-36+)
# SMS-R	NTZZ03EA
SMS-R	NTZZ03EF
SMS-R+	NTZZ03ED

LGC	NTZZ02BA
LTC	NTZZ02CA
DTC	NTZZ04BA
DTC w/DWS	NTZZ04BB
# CPCI, TMS	NTZZ17GB
# CPCI, ETMS	NTZZ17GC
# CPCI, ETMS	NTZZ17GK
# CPCI	NTZZ17CA
# CPCI w/DWS	NTZZ17DA
LGC+	NTZZ02QA
# LGC+, ADSI/SCWID	NTZZ02QH (minimum BCS-36+)
LGC+	NTZZ02QJ (minimum BCS-36+)
LTC+	NTZZ02PA
# LTC+, ADSI/SCWID	NTZZ02PH (minimum BCS-36+)
LTC+	NTZZ02PJ (minimum BCS-36+)
DTC+	NTZZ04HB
DTC+ w/DWS	NTZZ04KA
LGC+ w/EDC	NTZZ02QM
LTC+ w/EDC	NTZZ02PM
LGC+ w/EDC, ADSI/SCWID	NTZZ02QN
LTC+ w/EDC, ADSI/SCWID	NTZZ02PN
CPCI+	NTZZ17GC
# CPCI+ w/DWS	NTZZ17TM
# CPCI+ w/DWS	NTZZ17TN
# CPCI+, ADSI/SCWID	NTZZ17GH
CPCI+	NTZZ17GJ (minimum BCS-36+)
# SMUI	NTZZ03MA
# SMUI	NTZZ03MB
# SMUI+	NTZZ03RA
# SMUI+	NTZZ03RB (minimum BCS-36)
SMUI+	NTZZ03RC
# SMUI+, ADSI/SCWID	NTZZ03RH
# SMUI+, ADSI/SCWID	NTZZ03RJ
# SMUI+	NTZZ03RK (minimum BCS-36+)
SMUI+	NTZZ03RL (minimum BCS-36+)
# LTCI	NTZZ17QA
# LGCI	NTZZ17RA
# DTCI	NTZZ17SA
LTCI+	NTZZ17QM
# LTCI+, ADSI/SCWID	NTZZ17QR
LTCI+	NTZZ17QS (minimum BCS-36+)
LGCI+	NTZZ17RM
# LGCI+, ADSI/SCWID	NTZZ17RR
LGCI+	NTZZ17RS (minimum BCS-36+)
DTCI+	NTZZ17SM

NOTES:

- Manufacturing Discontinued (MD) status.

DWS - Dialable Wideband Services feature.
EDC - Extended Distance Capability feature.
ETMS - Enhanced TOPS Message Switch application.
TMS - TOPS Message Switch application.
ADSI - Analog Display Services Interface feature.
SCWID - Spontaneous Call Waiting ID feature.
MVI - Multiple Vendor Interface feature.

- 2) Equip peripheral controller modules per customer requirements. One NTZZ17AT CPCE Frame can accommodate a maximum of two Common Peripheral Controller modules. Each module will occupy shelf position X and X+14 (where X = 18, or 51).
- 3) If the second module is not equipped on the NTZZ17AT frame, provide one (1) Common Peripheral Controller module Filler Face Plate, NT6X02AB.
- 4) Provide the NTZZ17RM ISDN XPM Plus LGC (as common peripheral controller module) for non-DWS and non-TMS applications.
- 5) Provide the NTZZ17TM ISDN Common Peripheral Controller Module with XPM+ and DWS for DWS applications.
- 6) Provide the NTZZ04BA Digital Trunk Controller for non-DWS applications.
- 7) Provide the NTZZ04BB Digital Trunk Controller for DWS applications.
- 8) The formerly provided NTZZ03CA Subscriber Module Rural (SMR) Common CP has been changed to MD status. The module provided a direct digital interface to the DMS-1R Remote Concentrator Module. These products have been replaced by the Subscriber Module Urban (SMU) peripheral controller and the DMS-1U Remote Concentrator Module which it interfaces.
- 9) Provide one NTZZ02QJ to equip an LGC module for Unified Processor (XPM+) applications.
- 10) Provide one NTZZ02PJ to equip an LTC module for Unified Processor (XPM+) applications.
- 11) Provide one NTZZ04HD to equip a DTC module for Unified Processor (XPM+) applications.
- 12) NTAX74AA is provisionable in DTCT for MCI ACD applications ONLY. It is not provisionable in LTC/LTCT/LGC/LGCT or any

other DTCI application. For this reason, the NTZZ17SU and NTZZ17SV are provisionable ONLY in DTCI for MCI ACD applications.

- 13) The SMA module has been manufacture discontinued.
- 14) Provide one NTZZ02QM to equip a LGC module to host an RCC2 that is equipped for Extended Distance Capability. Provide one NTZZ02QN, instead of the NTZZ02QM, to equip an LGC module to host an RSC or RSCS with extended distance and ADSI/SCWID capability.
- 15) Provide one NTZZ02PM to equip a LTC module to host an RCC2 that is equipped for Extended Distance Capability. Provide one NTZZ02PN, instead of the NTZZ02PM, to equip an LTC module to host an RSC or RSCS with extended distance and ADSI/SCWID capability.
- 16) Provide one NTZZ17GJ (for US/CALA apps) to equip a module for TOPS Message Switch (TMS) or ETMS applications (XPM+ in TMS requires TOPS03 or later). Provide the NTZZ17GM for CDN apps of the TMS/ETMS.
- 17) Provide the NTZZ04KA Digital Trunk Controller with XPM PLUS for DWS applications.
- 18) Provide the NTZZ17TM ISDN Digital Trunk Controller with XPM PLUS for DWS applications.
- 19) Provide the NTZZ03DK SMU Packfill to equip one module as an SMU with the Unified Processor.
- 20) Provide the NTZZ03BS SMS+ Packfill to equip one module as an SMS with the Unified Processor. No NT6X80 Pad/Ring CPs are included with the NTZZ03BS, they must be ordered separately per RUL11.
- 21) Provide the NTZZ03ED SMS-R+ Packfill to equip one module as an SMS-R with the Unified Processor. No NT6X80 Pad/Ring CPs are included with the NTZZ03ED Building Block, they must be ordered separately per RUL11.
- 22) The introduction of SMUI+ packfill NT6X02CX changes slot 14 from NT6X44CA (as always provided) to provisionable. For packfill NT6X02CX the NT6X44CA or the NTAX78AB can be provisioned into slot 14. For digital test access (DTA), the NTAX78AB must be provided. Details for provisioning are as follows:

- * For SMUI+ with NT6X69AC and NO DTA, provide NTZZ03RC and two (2) NT6X44CA.
- * For SMUI+ with NT6X69AD (BCS-36 and above) and NO DTA, provide NTZZ03RL and two (2) NT6X44CA.
- * For SMUI+ with NT6X69AC and DTA, provide NTZZ03RC and two (2) NTAX78AB.
- * For SMUI+ with NT6X69AD (BCS-36 and above) and DTA, provide NTZZ03RL and two (2) NTAX78AB.

23) Provide the NTZZ17QS LTCI+ Packfill to equip one module as an LTCI with the Unified Processor.

24) Provide the NTZZ17RS LGCI+ Packfill to equip one module as an LGCI with the Unified Processor.

25) Following is the rule on when to provide NT6X69AC or NT6X69AD. Provide two (2) NT6X69AD CPP Message Protocol CPs for all modules with the following exceptions: The NT6X69AD cannot be used in DMS-10 applications, SMSR applications, or SMS with MP/SP with XPM03 or lower software loads. SMS supports NT6X69AD with XPM+ with BCS36 and later. These exceptions still require NT6X69AC's. The following Building Blocks are equipped with the NT6X69AD Message Protocol and Tone CPs required for offices BCS-36 and beyond: NTZZ02PJ, NTZZ02QJ, NTZZ03BS, NTZZ03DK, NTZZ03RL, NTZZ17GJ, NTZZ17QS, NTZZ17RS, NTZZ04HD, NTZZ04KD, NTZZ17ST, and NTZZ17TT. The following Building Blocks are equipped with NT6X69AC and are used in offices BCS-35 and below, or is SMS with MP/SP, or SMS-R: NTZZ02PA, NTZZ02QA, NTZZ03BE, NTZZ03DE, NTZZ03RC, NTZZ17GC, NTZZ17QM, and NTZZ17RM, NTZZ04HB, NTZZ04KA, NTZZ17SM, and NTZZ17TM. When the ADSI and SCWID features of BCS-36+ are to be supported, then CLASS Modem Resource CPs and Universal Tone Rcvr Ccts must be provided separately per RUL3 and RUL4. See NOTE 4.

- RUL2
- 1) See NOTE 6 for a restriction on the quantity of circuit packs to be provided in slots 1 through 5 of each shelf of an equipped module. The restriction of NOTE 6 includes the circuit packs provisioned per RUL9.
 - 2) For all U.S. applications, or for Canadian applications where Extended Frame Format feature is required, provide maximum ten (10) NT6X50AB, DS-1 EFF Interface for each DTC/LGC/LTC/SMA for P-side interface. Provide one (1) P0690976 label for each NT6X50AB. The NT6X50AB is required in applications that interface a fiber span (SONET), there-

fore, the NT6X50AA should not be used to interface a fiber span.

For Canadian applications where EFF feature is not required, provide maximum ten (10) NT6X50AA DS-1 Interface CPs for each DTC/LGC/LTC for P-side interface. Provide one (1) P0626878 label for each NT6X50AA. The NT6X50AB is required in applications that interface a fiber span (SONET), therefore, the NT6X50AA should not be used to interface a fiber span.

For each SMS/SMS-R, provide maximum ten (10) NTZZ03FA SCM DS-1 Interface CP. Rating change is pending for the NTZZ03FA. Provide maximum ten (10) NT6X85AC DS-1 Interface Circuit Packs, with labels, when the NT6X85AC is available for this application per manufacturing phase-in plan.

For each SMU, provide maximum ten (10) NT6X85AC DS-1 Interface CPs. The NT6X85AC replaces the formerly provided NTZZ03FA for SMU applications immediately. Provide one (1) P0801996 Label for each NT6X85AC provided.

For each SMR, provide maximum ten (10) NTZZ03GA DS-1 P-Side Interface as per customer requirements.

On DMS250 offices where Echo Cancellation is required, order the NT6X50EC circuit pack. The NT6X50EC can be mixed with other NT6X50 CPs. Minimum BCS is 32.

- 3) Each NT6X50AB, NT6X50AA, NTZZ03FA or NT6X85AC provides interfaces for up to two (2) T-1 spans.
- 4) Provide maximum ten (10) NT6X50AB, DS-1 Extended Frame Format Interface, per ISDN module as per customer requirements for P-side interface. Provide a maximum of eight NT6X50AB DS-1 Extended Frame Format Interface per SMUI module for P-side interface.
- 5) Each NT6X50AB provides interfaces for up to two (2) T-1 spans used for links to RSC/RLCM/OPM/Convertible RLCM, links to packet handler, non-ISDN trunks and PRI trunks (depending on module type).
- 6) The DS1 ports in the Trunk Member Table of the DMS switch are referred to as circuits. The DS1 port number equals the circuit number. For PRI applications, spreading of PRI trunk members over several peripherals is not allowed. All members must be on the same DTCI.

- 7) Note that each DCH/EDCH assigned to a shelf position physically makes two (2) DS-1 ports unavailable, those ports cannot be assigned to NT6X50AB.

- 8) Non-ISDN trunks can co-exist with PRI trunks on the same physical DS-1.

The following table is a listing of DS-1 ports per circuit pack location:

CP POS	5	4	3	2	1
SHF POS X+14	PORTS 2, 3	PORTS 6, 7	PORTS 10, 11	PORTS 14, 15	PORTS 18, 19
SHF POS X	PORTS 0, 1	PORTS 4, 5	PORTS 8, 9	PORTS 12, 13	PORTS 16, 17

For the lower module in the frame X=18 (i.e., shelf positions 18 and 32),

and for the upper module in the frame X=51 (i.e., shelf positions 51 and 65).

- 9) Assign the DS-1 hardware in the module such that the DS-1 ports (circuits) start from port 0 and increase in sequential order (i.e. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19). This assignment is really critical only if there are 18 or less than 18 core equipped DS-1 ports/circuits. For new offices this rule must be strictly adhered to. For TMS, refer to paragraph 9 of this rule (2).
- 9) For TMS, ETMS, and OC ETMS applications, refer to ECM 468 for DS-1 provisioning.

- RUL3 1) Provide one (1) NTZZ02EA CLASS Modem Resource for each LGC/LTC and LGCI/LTCI/SMUI module to provide Calling Number Delivery (CND) to the lines that subtend the module or to support ADSI or SCWID. The circuit packs mount in slot 13 of each shelf. The CMR card is applicable only in line based XPMs.

If an LGC/LTC/LGCI/LTCI is only going to host RSCs, and all the RSCs hosted have CMR cards, then the module does not require CMR cards. If the LGC/LTC/LGCI/LTCI has a mix of

RSCs RLCMs and LCMs, and the LCMs/RLCMs are to have CND, ADSI, or SCWID features, then the LGC/LTC/LGCI/LTCI requires CMR cards.

- 2) Provide one (1) NTZZ02EA, CLASS Modem Resource, for each SMS/SMU module that is to provide CLASS Calling Number Delivery (CND) to the lines that subtend the module or is supporting ADSI or SCWID. The circuit packs mount in slot 16 of each shelf.
- 3) Do not provision CMR cards in the SMS-R module. If the CND, ADSI, or SCWID feature is required for the lines subtending an SMS-R module, the necessary CMR cards must be provisioned in the Remote Switching Center (RSC) which is hosting that SMS-R.
- 4) CLASS does not apply to TMS.

- RUL4
- 1) Provide one NTZZ02FC 30 GTR Circuits for each LGC/LTC/DTC/SMU/SMA/SMS and LGCI/LTCI/DTCI/SMUI to perform Digitone and MF receiver functions. UTR/GTRs may only be provided for SMS/SMUI modules at BCS-35 and above. UTR/GTRs may only be provided for SMU modules at BCS-36 and above. The NTZZ02FC eventually replaces NTZZ02FA and NTZZ02FB UTRs.
 - 2) One NTZZ02FC provides up to 30 circuits. Each NTZZ02FC contains two circuit packs, one for each shelf of the module. The first NTZZ02FC in a module is mounted in card slot 15, EXCEPT for SMS modules where it is mounted in card slot 17. The GTR, NT6X92EA, can exist anywhere a UTR exists, however, they cannot be mixed in the same module.
 - 3) When UTR/GTRs are provided in an SMS module, the module must be equipped with NT6X69AC/AD in card slot 18, rather than older Messaging packs, in order to avoid exceeding power consumption limits.
 - 4) For historical purpose, the NTZZ02FB contains two NT6X92BC CPs with labels. The NT6X92BC is a power-reduced version of the NT6X92BB CP included in NTZZ02FA. The NT6X92BC CPs were cut into new production with no upgrade of existing field stock. The NT6X92BB, NT6X92BC and NT6X92EA are physically and functionally interchangeable. Check availability before ordering the NTZZ02FC.
 - 5) If more circuits are required for LGC/LTC/DTC modules, an additional NTZZ02FC can be ordered to mount in card slot 16. The second card in slot 16 CANNOT be added for other

module types. The NT6X92EA GTR cannot be mixed in the same module as NT6X92 UTRs. If additional tone receivers are required, the existing UTRs must be replaced by GTRs in addition to the required GTRs.

- 6) Do not order any UTR/GTRs for SMR, SMS-R, or TMS modules
- 7) The Analog Display Services Interface (ADSI) and Spontaneous Call Waiting ID (SCWID) features of BCS-36+ require that the supporting modules be equipped with UTR/GTR CPs. This does not apply to the SMS-R module. If the ADSI or SCWID feature is required for the lines subtending an SMS-R module, the necessary UTR/GTR cards must be provisioned in the Remote Switching Center (RSC) which is hosting that SMS-R.
- 8) UTR/GTR cards located in a particular LGC/LTC module will service all lines and trunks connected to that module. This includes all lines in LCM's, RLCM's and OPM's.

RUL5 1) Provide one (1) NTZZ02GC, DS30 Network Interface, for each CPC/CPCI module requiring up to sixteen DS-30 ports to the Network. Each NTZZ02GC contains circuit packs for shelf position X and X+14 (where X = 18, or 51). The NTZZ02GC will eventually replace the NTZZ02GA. The NTZZ02GC offers NT6X40AD I/F CPs that have enhanced diagnostic functionality when installed in both shelves of a module in offices with XPM05 or later load. If the office has XPM05 or later but mixes the NT6X40AD in a module with NT6X40AC, or if the office has XPM04 or earlier load, then the enhanced diagnostic capability cannot be utilized and the NT6X40AD acts like the NT6X40AC. If the NT6X40AC and the NT6X40AD are mixed in a module, they must be datafilled as NT6X40AC.

2) Provide one (1) NTZZ02GA, DS30 Network Interface, for each SMS module requiring a maximum of four DS30 interfaces to the network. Each NTZZ02GA contains circuit packs for shelf position X and X+14 (where X = 18 or 51). For applications where the SMS will utilize more than four ports to the network, use NTZZ02GC.

- 3) Provide one NTZZ02HN DS512 Network Interface, for each CPC/CPCI (except SMS-R) module requiring DS-512 interface to the Enhanced Network (E-NET). Each NTZZ02HN contains circuit packs for shelf position X and X+14 (where X = 18 or 51). The NTZZ02HN will eventually replace the NTZZ02HM. The NTZZ02HM offers NT6X40FB I/F CPs that have enhanced di-

agnostic functionality when installed in both shelves of a module in offices with XPM05 or later load. If the office has XPM05 or later but mixes the NT6X40FB in a module with NT6X40FA, or if the office has XPM04 or earlier load, then the enhanced diagnostic capability cannot be utilized and the NT6X40FB acts like the NT6X40FA. If the NT6X40FA and NT6X40FB are mixed in a module they must be datafilled as the NT6X40FA.

- 4) Do not provide NTZZ02HM/HN for SMS-R modules.

RUL6 1) Provide one (1) NT0X50AA, Filler Face Plate 0.875, for each card position that is unequipped.

RUL7 1) For each LGC/LTC that will interface LCMs, provide two (2) NTZZ02KA 10 DS30A LCM Interface when up to ten DS-30A ports are required or two (2) NTZZ02KA 10 DS30A LCM Interfaces when between eleven and twenty DS-30A ports are required. The first NTZZ02KA will be assigned to slot 6 and the second will be assigned to slot 7.

- 2) For LGC/LTC, assign first the DS30A LCM Interface in the module if provided. Then assign the DS-1 Interfaces in the module such that the DS-1 ports (circuits) start from 0 and ascend sequentially utilizing ports that have not been assigned to an LCM or LCME. The LGC/LTC DS-1 ports (circuits) that are used for digital trunking and links to remotes are to be picked from this block of ports (circuits). For new offices, this rule must be strictly adhered to.

This rule is critical in LGC/LTC that have fewer than 16 network ports and when 18 or less than 18 DS-1 ports are used for trunking or homing remotes.

- 3) For LGCI/LTCI applications, provide two (2) NTZZ02KA to support up to ten DS-30A ports or two (2) NTZZ02KA to support between eleven and twenty DS30A ports to interface links from LCME and/or LCM. Assign the first NTZZ02KA to slot 6 and the second to slot 7. For DTCI applications provide four (4) NT0X50AA Filler Face Plates.
- 4) The ports for DS30A must be selected from those ports that remain after assignment of port circuits to DCH/EDCH and DS-1 circuits.
- 5) When DS-30A interface packs are provided in both slot 6 and slot 7, assign ports to DS30A in the following sequence: 19, 17, 18, 16, 15, 13, 14, 12, 11, 9, 10, 8, 7, 5, 6, 4,

3, 1, 2 and 0 (if unused by DCH/EDCH or DS-1). In an extension job, when adding new DCH/EDCH ports, the DS30A ports may have to be re-configured.

- 6) A pair of NTZZ02KAs provides interfaces for up to twenty (20) DS30A ports (links) from LCMIs and/or LCMs. The following is a listing of DS30A ports per DS30A LCM Interface CP location:

	CP POS 6	CP POS 7
PORT	2	0
PORT	3	1
PORT	6	4
PORT	7	5
PORT	10	8
PORT	11	9
PORT	14	12
PORT	15	13
PORT	18	16
PORT	19	17

- 7) DS-30A does not apply to TMS.

RUL8 1) Provide one (1) NTZZ04CA, Continuity Tone Detector, for each DTC module requiring continuity tone detection for SS7. For Canadian offices, the Continuity Tone Detector is only required where analog facilities are used at some point in the end-to-end connection of the trunk. Each NTZZ04CA contains circuit packs for shelf position X and X+14 (where X = 18 or 51).

- 2) Continuity Tone Detectors do not apply to TMS.

RUL9 1) See NOTE 6 for a restriction on the quantity of circuit packs provided in slots 1 through 5 of each shelf of an equipped module. The restriction of NOTE 6 includes the CPs provisioned per RUL2.

- 2) Provide maximum nine (9) D-Channel Handler CP per LGCI or LTCI module, and maximum four (4) per SMUI or SMA module. Provide either NTZZ17BA D-Channel Handler (DCH) CP or NTZZ17BB Enhanced D-Channel Handler (EDCH) CP in accordance with customer requirements and the following conditions: Note: The NTZZ17BA is at MD status. The following notes are kept here for historical purposes.
- A. EDCH hardware requires BCS-35, except for TMS, which requires BCS-36. Always order NTZZ17BB for all new jobs at these BCS levels and above.
 - B. The EDCH software load requires the Unified Processor (XPM+) and the Enhanced ISDN Signaling Preprocessor (EISP) in the module. TMS does not use the DCH or the EDCH load; therefore, a TMS module with BCS-36 can use EDCH without XPM+ or EISP.
 - C. The EDCH CP may be combined with DCH CPs in a module, but in that case the DCH software load is required (rather than EDCH load) and the EDCH CP operates as if it is a DCH; i.e., the enhanced capacity of the EDCH CP is not utilized.
 - D. A DCH may be spared with an EDCH circuit pack at BCS-35 or above (BCS-36 for TMS).

NOTE:

The NTB02AA DCH CP, included in NTZZ17BA, has been changed to MD status and replaced by the NTB02BA, which is included in NTZZ17BB. The NTB02AA DCH and NTB02BA EDCH are both supported in XPM02, XPM03, XPM04 and XPM05. Only the NTB02BA is supported in XPM06 and above.

Note: The following information with respect to the DCH is for historical information only. The DCH card is at MD status.

- 3) Each DCH/EDCH supports up to 124 BRI D-Channels. The spare DCH or EDCH should not be counted when determining the number of DCH/EDCHs required to support D-channel traffic.
- 4) Each DCH/EDCH, including the spare, requires one peripheral port on the CPCI module. Assign DCH/EDCH cards to shelf and slot positions in the following order. The spare DCH/EDCH should be assigned last:

		Shlf	CP	Assign
		Pos	Pos	To Logical
		-----	---	Port Number
1st	DCH/EDCH CP Provisioned:	X+14	1	19
2nd	DCH/EDCH CP Provisioned:	X	1	17
3rd	DCH/EDCH CP Provisioned:	X+14	2	15
4th	DCH/EDCH CP Provisioned:	X	2	13
5th	DCH/EDCH CP Provisioned:	X+14	3	11
6th	DCH/EDCH CP Provisioned:	X	3	09
7th	DCH/EDCH CP Provisioned:	X+14	4	07
8th	DCH/EDCH CP Provisioned:	X	4	05
9th	DCH/EDCH CP Provisioned:	X+14	5	03
10th	DCH/EDCH CP Provisioned:	X	5	01

For the lower module in the frame, X=18 (i.e., shelf positions 18 and 32), and for the upper module in the frame X=51 (i.e., shelf positions 51 and 65).

- 5) DCH/EDCH CP are not required for DTCI (PRI) applications, nor where the CPCI supports only non-ISDN LCMs.
 - 6) For TOPS Message Switch applications, provide four (4) DCH/EDCH CP in card slots 1 & 2 of shelf X & shelf X+14. EDCH CPs may be used in TMS applications at BCS-36 and higher. EDCH NOT REQUIRED IN OC ETMS.
 - 7) For SMA applications: ISDN support on an SMA requires BCS-36 or higher. The Enhanced D Channel Handler will be used for SMA ISDN support; the DCH is NOT supported. A maximum of three active (and one hot spare) EDCHs per SMA module are allowed.
- RUL10 1) Provide one (1) NT0X0009 Logic Return Cable Assembly per frame when extending existing offices not equipped with enhanced grounding per IS0X00.
- 2) For U.S. offices, this frame does not require the provisionable cable assembly when extending a non-ISG office with current grounding methods. Instead a provisionable switchboard cable is run from the NT0X9504 bus bar assembly in each frame to the PDC battery return plate. (Refer to CA drawings for details.)
- RUL11 1) Provide one NTZZ02SB Ring/Pad Ckt per SMS module Building Block listed in RUL1 equipped with the NT6X02DS/DT/DU packfill.

- 2) Provide one NTZZ02SB Ring/Pad Ckt per SMS-R module Building Block listed in RUL1 equipped with the NT6X02PH/PJ/PK packfill.
 - 3) Provide one NTZZ02SB Ring/Pad CKT per SMA module equipped with NT6X02TF or later packfill. See NOTE 5.
 - 4) Provide one NTZZ02SB Ring/Pad Ckt for each SMU module equipped with the NT6X02EP or ET packfill and for each SMUI module equipped with the NT6X02ES or NT6X02CX packfill. Each NTZZ02SB includes two NT6X80BB Ring/Pad CPs with labels.
- RUL12 1) If the frame is to house DMS-250 DTC7s, one wiring kit is required per DTC7. The NT6X01WC wiring option used only on the NT6X01AB frame when upgrading to Non-ISDN applications. This option provides a wire strap on backplane NT6X0103 slot 12 between Pins 7A and 8A. NT6X01AD replaces the NT6X01AB for production. The NT6X01AD frame is already wired for Non-ISDN applications and use the NTRX36NI jumper in place of the NT6X01WC kit.
- RUL13 1) For DMS-250 applications, provide the NT6X62AA for reorigination tone feature only. When reorigination tone and Blue Box Fraud features are required provide the NT6X62AB card.
- RUL14 1) An LGC or LTC module which hosts an RCC2 equipped for Extended Distance Capability must be equipped with the NTMX76AA HDLC Messaging CPs in card slot 18. Use of the HDLC Messaging CPs requires that the module be equipped with the Unified Processor. Therefore, an existing LGC+ or LTC+ may be upgraded to support an RCC2 with EDC by replacing the existing Messaging packs in card slot 18 with NTMX76AA CPs. Provide one NTZZ02RC Msg Protocol Ckt to provide two NTMX76AA CPs, with labels, for this purpose.
- 2) Support for the ADSI/SCWID feature requires the module to be equipped with NT6X69AD Messaging packs, CMRs and UTR/GTRs. Provide two NT6X69AD packs and two P0800014 labels and mount them in slot 18 of both shelves to provide ADSI/SCWID support. Refer to Rule 3 and Rule 4 for CMR and UTR/GTR provisioning rules.
 - 3) Support for the ADSI/SCWID feature with extended distance capability also requires qty (2) of the NTMX76AB, instead of the NTMX76AA, to be provisioned in both the host and remote. Refer to Rule 1 for provisioning of the building blocks for this application.
 - 4) An LGC or LTC module

which hosts an RCC2 equipped for Extended Distance Capability and ADSI/SCWID must be equipped with the NTMX76AB HDLC Messaging Cps in card slot 18. Use of the HDLC Messaging Cps requires that the module be equipped with the Unified Processor. Therefore, an existing LGC+ or LTC+ may be upgraded to support an RCC2 with EDC and ADSI/SCWID by replacing the existing Messaging packs in card slot 18 with NTMX76AB Cps. Provide one NTZZ02RD Msg Protocol Ckt to provide two NTMX76AB Cps, with labels, for this purpose.

- RUL15 1) Provide one NTRX36NI Kit per each non-ISDN module: LTC, LGC, DTC, SMS, SMR, SMU, SMS-R ordered. The kit contains two jumpers, one for each shelf of the module. The jumpers are used to connect pins 7A and 8A together on the backplane of each shelf to permit the module to function in non-ISDN capacity.
- 2) The SMA module, the TMS module, and the ISDN modules do NOT require the NTRX36NI kit.
- RUL16 1) The NT6X02WC Prod. Chg. Kit was provided as part of the upgrade of an existing SMS or SMS-R module to XPM+. This kit provided two NT6X86AB A-bit Message Cps with labels to replace the existing NT6X86AA. The NT6X86AB is required with the Unified Processor. The processors are upgraded by applying the NTZZ99AN Product Change Kit. See RUL19. The NT6X02WC Kit should no longer be used. Provide one NT6X02WG Kit for all future upgrades.
- 2) Application of the NT6X02WC Kit to an SMS module equipped with the NT6X02DR packfill converted it to NT6X02DS. Application of the NT6X02WC Kit to an SMS-R module equipped with the NT6X02PG packfill converted it to NT6X02PH.
- 3) Where the NT6X02WC Kit has been deployed for XPM+ SMS or SMS-R order two NT6X80BB Cps with labels and replace existing NT6X80AA or NT6X80BA. The NT6X02WC Kit should no longer be used. For all future XPM+ SMS or SMS-R upgrades use the NT6X02WG kit. See EMS for NT6X02WG - EMA2-99-XPM-20.
- RUL17 1) Provide one NT6X02WB Product Change Kit to upgrade any peripheral module requiring the NT6X69AD. The NT6X02WB is for field application only. Other changes may also be required to support ADSI and SCWID; see NOTE 4.
- RUL18 1) Support for the ADSI or SCWID feature requires that the module be equipped with NT6X69AD Message Protocol and Tone Cps. Provide one NTZZ02RB Msg Protocol Ckt, ADSI/SCWID,

when an existing module must be upgraded to provide support for ADSI or SCWID. Each NTZZ02RB contains two NT6X69AD CPs with labels. This rule does NOT apply to the SMS-R module. See NOTE 4 for additional requirements regarding ADSI/SCWID.

- 2) Provide one NTZZ02RA Msg Protocol Ckt when the module packfill does not provide a circuit pack for card slot 18 AND the office is at BCS-36 or below or the module is an SMS with an MP/SP processor or SMS-R.

- RUL19 1) Provide one NTZZ99AN to upgrade one existing XPM module to XPM+ capability. The module must first be brought to the following minimum packfill level before upgrade:

DTC Module : NT6X02IC
LGC Module : NT6X02LC
LTC Module : NT6X02MC

NTZZ99AN may also be used to upgrade an existing SMU module on the NT6X01AD frame to XPM+. The result of this upgrade is as follows:

SMU+ : NT6X02EM

- 2) One NTZZ99AN provides two NTMX77AA Unified Processor CPs and labels for slot 12, and two NTMX71AA Terminators and P0749586 Insertion Guides for slot 19 Rear. The existing NT6X45, NT6X46, and NT6X47 packs must be removed and the vacant slots provided with NT0X50AA filler face plates. Refer to NOTE 7 for Ground Point instructions.
- 3) XPM+ for TOPS Message Switch (TMS) applications requires TOPS03.
- 4) An SMS or SMS-R module requires application of one NT6X02WC Product Change Kit in addition to one NTZZ99AN kit. See RUL16.

- RUL20 1) Provide one NTZZ99AM Product Change Kit to upgrade one existing DTC or CPCI module equipped with the NT6X44AA Time Switch CP (NTZZ04BA and NTZZ17CA contain the NT6X44AA) to provide support for Dialable Wideband Service (DWS). The NTZZ99AM kit provides two NTAX78AA Enhanced Time Switch CPs with labels, to replace the existing NT6X44AA. The NTZZ99AM is for field application only. (The NT6X44AA time switch was never used in the field in SMA Applications).

- 2) Application of the NTZZ99AM kit to a DTC module equipped with the NTZZ04BA packfill converts it to NTZZ04BB.
 - 3) Application of the NTZZ99AM kit to a CPCI module equipped with the NTZZ17CA packfill converts it to NTZZ17DA.
- RUL21 1) Provide one NT6X02WE Product Change Kit to convert one existing NT6X02EM SMU module to the NT6X02EP SMU Module. For field application only.
- 2) In the NT6X02EM Module, slot 19 was always provided with NT6X80BA. Product Change Kit NT6X02WE make slot 19 provisionable with only the NT6X80BB. The NT6X80BB is required to reduce crosstalk during frequency selective ringing (FSR) in DMS-1Us, which interface SMUs/(ISDN) SMUs.
- RUL22 1) Provide one (1) NTZZ02UA Peripheral Loader CP when support for the Peripheral Loader Option is required. A module to be equipped with NTZZ02UA must also be equipped with NTMX77AA Unified Processor CPs (XPM+).
- 2) The NTZZ02UA Peripheral Loader CP mounts in card slot 15 of an SMS module, and in all other modules NTZZ02UA mounts in card slot 17. Do not use the PL CP with SMA peripheral modules.
- RUL23 1) The SMA product has been MD'd.
- RUL24 1) The NTB01BA is currently provided for SMA in the SMA module Building Blocks. There is currently no rule to provision the NTZZ03AJ.
- RUL25 1) Provide one NT6X02YR to convert one existing SMA module to either an LTCI, LGCI, or DTCI module on the NT6X01AD frame. This kit converts NT6X02TE/TF/TH/TJ to NT6X02NA. This conversion provides the same C-side and P-side capacity that the SMA provided. If any additional capacity is required, it must be provisioned. Refer to the NT6X02YR Engineering Manual Section for further details.
- RUL26 1) Provide one NT2X70AY to upgrade the NT2X70AE in a module to NT2X70AF. This kit is for field applications where the NT2X70AE was always provided. NT2X70AE is not valid in DTC+ applications.
- RUL27 1) Provide one NT6X02CY to upgrade the NT6X02ES to NT6X02CX with DTA (kit includes application of two (2) NTAX78AB for DTA). For field applications only. Refer to the NT6X02CY engineering manual section for further details.

- RUL28 1) Provide one NT6X02YA (per module) to upgrade existing SMR (NT6X02CQ) to SMU (NT6X02EU). Refer to the NT6X02YA engineering manual section for further details (section includes information for upgrading from previous versions of the SMR packfill).
- RUL29 1) Provide one NT6X02YB (per module) to upgrade existing SMR (NT6X02CT) to SMS (NT6X02EU). Refer to the NT6X02YB engineering manual section for further details (section includes information for upgrading from previous versions of the SMR packfill).

RINGING GENERATOR (UK)

PEC CODE:	NTZZ41XT
CPC CODE:	B0236544
RATING:	Standard
REPLACES:	N/A
REPLACED BY:	N/A
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the ILCE.
REFERENCE DOCUMENTATION:	SLZZ41XT 00 01 PAS
MARKETS:	Applicable markets:
	Europe
ISSUE AUTHOR: NTI:	Ron Hogan Dept. 3471 (PPK)
MAIN CONTACT: NTI:	Ron Hogan Dept. 3471 (PPK)

NTZZ41XT EMB2-07-IRG-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 07 31 96 02 09	ECM 619 06 ECM 619 39	NTZZ41XT Introduced Update NTZZ41XT to current format standards.

The Ringing Generator (UK) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X30AB		2	72	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ41XT is ordered, these items are provided.

RINGING GENERATOR (CHINA)

PEC CODE: NTZZ41YT

| CPC CODE: B0236545

| RATING: Standard

| REPLACES: N/A

| REPLACED BY: N/A

| ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the ILCE.

REFERENCE DOCUMENTATION: SLZZ41YT 00 01 PAS

MARKETS: Applicable markets:

| Asia/Pacific

| ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ41YT EMB2-07-IRG-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 07 31 96 02 09	ECM 619 06 ECM 619 39	NTZZ41YT Introduced Update NTZZ41YT to current format standards.

The Ringing Generator (China) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X30DA		2	72	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ41YT is ordered, these items are provided.

RINGING GENERATOR (AUSTRALIA)

PEC CODE: NTZZ41ZT

| CPC CODE: B0236546

| RATING: Standard

| REPLACES: N/A

| REPLACED BY: N/A

| ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the ILCE.

REFERENCE DOCUMENTATION: SLZZ41ZT 00 01 PAS

MARKETS: Applicable markets:

Asia/Pacific

| ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ41ZT EMB2-07-IRG-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 07 31 96 02 09	ECM 619 06 ECM 619 39	NTZZ41ZT Introduced Update NTZZ41ZT to current format standards.

The Ringing Generator (Australia) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X30AE		2	72	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ41ZT is ordered, these items are provided.

LINE CONCENTRATING MODULE
NORTH AMERICA

PEC CODE: NTZZ08BD

CPC CODE: B0242217

| RATING: Standard

| REPLACES: NTZZ08BA

REPLACED BY: Not Applicable

ABBREVIATION NAME: LCM

ENGINEERING DESCRIPTION: The NTZZ08BD provides the line shelves and drawers for the upper or lower LCMs. 64 lines per line drawer provides a total capacity of 640 lines.

REFERENCE DOCUMENTATION: MS6X03AA 00 24

SLZZ08BD 00 01

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ08BD EMB2-07-LCM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 12 22	ECM 619 12	Change LCM Common CP from NT6X04AB to NT6X04AC
95 01 20	ECM 619 27	EC 011-20036, change LCM CP to NT6X04AD
95 03 08	ECM 619 28	EC 011-20036, Provision LCM NTZZ08BD containing Processor NT6X51AC
95 10 18	ECM 619 36	Change status to Limited. Remove as replacement for NTZZ08BA per ET 30969.
96 02 09	ECM 619 39	Changes per BB Rat and GMF recommendations. Replaces NTZZ08BA. Solve ET83293/SR RR60311.

The Line Concentrating Module North America is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LCM Common CP	NT6X04AD		1			AP
Power Converter	NT6X53AA		1	X+17	1	AP-01
* Extended LCM Processor	NT6X51AC		1	X+17	4	AP-01
Digroup Controller	NT6X52AA		1	X+17	5	AP-01
Line Drawers	NT6X05AA		5	X+17		AP
Line Circuits	As Req'd			X+17	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2
Power Converter	NT6X53AA		1	X	1	AP-01
* Extended LCM Processor	NT6X51AC		1	X	4	AP-01
Digroup Controller	NT6X52AA		1	X	5	AP-01
Line Drawer	NT6X05AA		5	X		AP
Line Circuits	As Req'd			X	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2
Designation Label	P0800469		2			AP-01

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
A0285591	MD	A0384362

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

* The NT6X51AB/NT6X51AC CP is necessary to support software package NTX270, New Peripheral Maintenance, from BCS32 and later BCS's. LCM's NT6X04AA already deployed do not contain NT6X51AB/NT6X51AC and require conversion to LCM NTZZ08AB to enable operation with NTX270 from BCS32 inclusive. Use NT6X04ZY, Extended LCM Processor Change Kit for this purpose.

NOTES:

- 1) The two lower rows of line card slots form one LSG and the upper two rows of line card slots form the other LSG. Each LSG has 32 line card slots (00-31). Each row within an LSG has 16 line card slots (i.e. each LD has up to 64 line card slots).

RULES:

- AP 1) When PEC NTZZ08BD is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X04AD LCM Common CP, and is shown here for completeness.
- RUL1 1) Refer to Table C-1, Section EMA14-03-000, for the list of line cards that are provisionable on the Line Drawer, their associated provisioning rules and assignment restrictions.
- 2) One Type A Line Card in slot 00 in line subgroup 00 must be provided for each LCM on a dedicated basis for diagnostic/testing purposes when analog ringing is required (i.e. in the absence of analog ringing, this slot is available for subscriber use).
- 3) Provide one (1) NT6X20AA Message Waiting Converter CP in the Line Drawer if there are any NT6X19AA, Line Card Type E in the Line Drawer.
- 4) Provide one (1) NT6X23AA, Power Converter (+48V) CP per line drawer (NT6X05AA) if there are any Type B line cards with +48V (NT6X18AB) and this +48V feature is required.
- 5) For datapath loop testing, one (1) NT6X99AA IBERT Line Card can be provided per LCM equipped with a data line card. Locate this NT6X99AA on slot 1 in line subgroup 00.
- If switch bit error rate testing is required, two (2) NT6X99AA IBERT Line Cards should be provided for each LCM in the office. Locate one (1) NT6X99AA on slot 1 in line subgroup 00 of an LCM and one (1) NT6X99AA on slot 0 in line subgroup 10 of the same LCM (i.e. one (1) NT6X99AA per LCA).
- For more information, refer to Section EMA14-03-000 Table C Line Drawer Provisionable Cards.
- RUL2 1) Provide one (1) Line Drawer Cutoff Strap for each line drawer whose line cards are to be held simultaneously cut-off per Telco requirements.

RINGING GENERATOR (NORTH AMERICA)

PEC CODE: NTZZ41WT

| CPC CODE: B0245692

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the LCE.

REFERENCE DOCUMENTATION: SLZZ41WT 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ41WT EMB2-07-RG4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 619 39	NTZZ41WT introduced per BB Rat and GMF recommendations.

The RINGING GENERATOR (NORTH AMERICA) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X30CA		2	72	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ41WT is ordered, these items are provided.

LINE CONCENTRATING EQUIPMENT

PEC CODE: NTZZ41JA

CPC CODE: B0236357

RATING: STD

REPLACES: NTZZ08AA, NTZZ08AB

REPLACED BY: Not Applicable

ABBREVIATION NAME: LCE/ILCE

ENGINEERING DESCRIPTION: The NTZZ41JA contains the LCE frame which houses up to (2) Line Concentrating Modules (LCM). Each NTZZ41JA contains a Frame Supervisory Panel, Line Concentrating Shelf Assembly and Framework. Ringing Generators are provisionable depending on market applications.

REFERENCE DOCUMENTATION: MSZZ41JA 00 01
SLZZ41JA 00 01
NTZZ41JA REL 01

MARKETS: Applicable markets:

US
Canada
CALA
Europe
Asia/Pacific

ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ41JA EMB2-07-003 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 07 31	ECM 619 06	NTZZ41JA Introduced
92 08 15	ECM 619 07	Change frame NT0X25AV to NT0X25AH
93 01 29	ECM 619 13	Add note on NT6X04AX provisioning
93 06 25	ECM 619 16	Incorporates EC 024-83202
93 12 03	ECM 619 19	Introduce NTZZ43MA International Line Concentrating Module.
93 12 15	ECM 619 20	Incorporates EC 024-90134 and 024-67558
94 02 11	ECM 619 22	ET450233
94 06 27	ECM 619 23	EC 024-91117
95 01 20	ECM 619 27	EC 024-91858
95 03 08	ECM 619 28	EC 011-20036, intro new LCM, NTZZ43MB
96 02 09	ECM 619 39	ET 21319 corrected LCM shelf assignment
97 04 18	ECM 619 44	Changes per BB Rat and GMF recommendations. Replaces NTZZ08AA & NTZZ08AB. Introduced NTZZ41WT Ringing Generator for North America.
97 05 13	ECM 619 45	Introduce NT6X05DA ISDN Line Drawer Remotes to the LCE per EC 024-97291 and EC 028-15577 for use with the RSC product.
97 09 26	ECM 722 01	Update EMS per EPSA recommendations. Show PECs NT6X05AA and NT6X04AD in equipment list associated with Rule 6, parts 2 and 3.
97 10 30	ECM 619 48	Introduce NT6X05EA LCM Line Drawer, Provisionable BIC to the LCE frame per 1-MMS Product Spec issue 01.08, EC 024-98088 and EC 024-98055.
		Introduce NT6X0377 LCE FSP Busbar Kit to the LCE frame per EC 024-98658. Correction to Rule 6, part 6. Added Rule 8. Updated Note 2.

The Line Concentrating Equipment is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LCE Frame	NT6X03AA		1			AP
LCE Frame Supervisory Panel	NT6X35AA	FSP	1	72		AP-01
Ringing Generator CP(N.A.)	NTZZ41WT		1	72	1, 2	RUL1
Ringing Generator CP(UK)	NTZZ41XT		1	72	1, 2	RUL1
Ringing Generator CP(CHINA)	NTZZ41YT		1	72	1, 2	RUL1
Ringing Generator CP(AUS)	NTZZ41ZT		1	72	1, 2	RUL1
FSP Busbars	NT6X0342		1	72		AP
LCE FSP Busbar Kit	NT6X0377		1	72		RUL8
Ring Return Straps	NT6X0338		1	72		AP
Line Con. Array Shelf Assy	NT6X0371	LCA1	1	55		AP-01
Line Drawer Filler	NT6X05AX	LD		38, 55		RUL2
Line Con. Array Shelf Assy	NT6X0371	LCA0	1	38		AP-01
North America LCM	NTZZ08BD	ILCM	1	38		RUL3
International LCM	NTZZ43MB	ILCM	1	38		RUL3
LCM Common CP	NT6X04AD			38, 55		RUL6
Line Drawers	NT6X05AA			38, 55		RUL6
ISDN Line Drawer Remotes	NT6X05DA			38, 55		RUL6
LCM Line Drawer, Provisionable BIC	NT6X05EA			38, 55		RUL7
LCM Filler Kit	NT6X04AX			38		RUL3
Line Con. Array Shelf Assy	NT6X0371	LCA1	1	21		AP-01
Line Drawer Filler	NT6X05AX	LD		04, 21		RUL2
Line Con. Array Shelf Assy	NT6X0371	LCA0	1	04		AP-01
North America LCM	NTZZ08BD	ILCM	1	04		RUL3
International LCM	NTZZ43MB	ILCM	1	04		RUL3
LCM Common CP	NT6X04AD			04, 21		RUL6
Line Drawers	NT6X05AA			04, 21		RUL6
ISDN Line Drawer Remotes	NT6X05DA			04, 21		RUL6
LCM Line Drawer, Provisionable BIC	NT6X05EA			04, 21		RUL7
LCM Filler Kit	NT6X04AX			04		RUL3
Universal Framework	NT0X25AH	FW	1			AP
# Rear Panel E/Q & Universal	ED1T53-02					RUL4
Rear Panels (Eq & Universal)	NT8T5055					RUL4
Cable Protection Brackets	P0664837			38, 55		RUL5
				04, 21		

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Mounting Screws	P097F813			38,55 04,21		RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
ED1T53-02	MD	NT8T5055

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1 Provide the NT6X04AX on new jobs or customer requested change on existing jobs.
2. NT6X0342 busbars are used in LCE frames which are less than 61 feet (one way wire run length) from the PDC. For frames which are greater than 61 feet from the PDC the busbars are removed in the field. Do not supply this kit for field upgrades since this kit will not work with older vintages of LCEs. See NT6X0377 and Rule 8.

RULES:

- AP 1) When PEC NTZZ41JA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X03AA Frame, and is shown here for completeness.

- RUL1 1) Provide one (1) NTZZ41WT Ringing Generator for North America applications.
- 2) Provide one (1) NTZZ41XT Ringing Generator for applications in the United Kingdom.
- 3) Provide one (1) NTZZ41YT Ringing Generator for applications in China.
- 4) Provide one (1) NTZZ41ZT Ringing Generator for applications in Australia.
- RUL2 1) Provide one (1) NT6X05AX, Line Drawer Filler, in any position not occupied by a line drawer.
- RUL3 1) Provide one (1) NTZZ43MB International Line Concentrating Module for Europe, Asia/Pacific applications.
- 2) Provide one (1) NTZZ08BD North America Line Concentrating Module for the US, Canada and CALA applications.
- 3) Provide one (1) LCM Filler Kit (NT6X04AX) if only one LCM is provided.
- RUL4 1) For optimum LCE cable protection, provide one Rear Cover (1) NT8T5055 per LCE. The Rear Cover NT8T5055 must be field installed. Refer also to the rule for Cable Protection Bracket P0664837.
- RUL5 1) Provide four (4) P0664837 Brackets and eight (8) P097F813 mounting screws for Line Drawer cable protection on the LCE frame if required by the customer. Cable Protection Brackets, P0664837, may be used additional to or as an alternative to the optimum protection provided by the Rear Cover NT8T5055. Refer to the rule for the Rear Cover NT8T5055. The Cable Brackets are to be shipped loose and installed by the customer or NT Installer.
- RUL6 1) For North America Remote ISDN applications, provide one (1) NT6X05DA ISDN Line Drawer Remotes per LCM shelf, with a maximum of two (2) per LCM Module. Each NT6X05DA accommodates up to 28 ISDN line cards in two logical drawers called Line Sub Groups (LSG), which can contain 14 cards each. It is recommended that the ISDN Line Drawer be provisioned in the right hand drawer position of each shelf in physical position 4 and 9 (logical drawers 8 and 18) in order to permit an optimal heat dispersion in the LCM. However, ISDN Line Drawers can be provisioned in any drawer position on the LCM shelf except physical position 0 and 5

(logical position 0 and 10). This is because BIC Relay Test diagnostics require those positions for systems use.

- 2) If the maximum of 56 ISDN Lines per LCM is required, and a new or previously unequipped LCM is being filled, provision two (2) NT6X04AD LCE LCM CPs, up to eight (8) NT6X05AA Line Drawers as required for POTS Lines, and two (2) NT6X05DA ILD-R Line Drawers per LCM in accordance with RULE 6, part 1, above. If only 28 ISDN Lines are required per LCM, provision one (1) NT6X05DA ILD-R Line Drawer and up to nine (9) NT6X05AA Line Drawers as required for POTS Lines in accordance with RULE 6, part 1, above.
- 3) If adding a NT6X05DA ISDN Line Drawer to an existing LCM per NTZZ08BD, one (1) NT6X05AA POTS Line Drawer will have to be removed (unassigned) for each NT6X05DA being added (assigned) to the LCM. Maximum two (2) NT6X05DA ILD-R per NTZZ08BD LCM.
- 4) Provide a maximum of seven (7) NT6X05DA ISDN Line Drawer Remotes per Remote site with a single (1) RSC NT6X10 frame.
- 5) Provide a maximum of fourteen (14) NT6X05DA ISDN Line Drawer Remotes per Remote site with dual (2) RSC NT6X10 frames.
- 6) For North America ISDN Line Drawer Remotes (NT6X05DA) applications using the NT6X03AA LCE frame, you must have the NT6X51AB LCM Proc CP (NT6X04AC) as a minimum. The NT6X51AC LCM Proc CP (NT6X04AD) shall be provided for new LCM modules.

- RUL7
- 1) Provide one (1) NT6X05EA LCM Line Drawer, Provisionable BIC for applications requiring 1-MMS Ethernet Service. Up to 16 xLCs may be provisioned per NT6X05EA. Up to twenty (20) NT6X05EA LCM Line Drawers may be provisioned per LCE (NT6X03AA). Refer to NT6X05EA Engineering Manual Section for provisionable DBIC and xLCs.
 - 2) An existing NT6X05AA Line Drawer may be upgraded to a NT6X05EA LCM Line Drawer by applying one (1) NTEX37AA PC Kit. Refer to NT6X05AA and NTEX37AA Engineering Manual Sections for further information.
 - 3) 1-Meg Modem Service is only available for North America DMS-100 Host office frame applications.
 - 4) If adding/upgrading an NT6X05EA LCM Line Drawer to an existing LCM per NTZZ08BD, one (1) NT6X05AA POTS Line Drawer

will have to be removed (unassigned) for each NT6X05EA being added/upgraded (assigned) to the LCM. Maximum ten (10) NT6X05EA LCM Line Drawers per NTZZ08BD LCM.

- RUL8 1) Provide one (1) NT6X0377 set of busbars per LCE bay for field upgrade jobs only. These jobs may be referred to as "Power Concentration" or "Power Cable Reduction" jobs. This kit will allow the busbars to work across all vintages of LCEs in the field. All other rules dictating maximum cable run lengths of up to 61 feet still apply. See Note 2.

CLMI LINE DRAWER FILLERS

NTZZ33CA

RATING: Standard

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ33CA Building Block provides line drawer filler panels for the upper two shelves of the CLMI when it is not equipped.

| REFERENCE DOCUMENTATION: SLZZ33CA 00 02
NTZZ33CA REL 02

The CLMI Filler Building Block is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Line Drawer Filler	NT6X05AX		4	33		AP
Line Drawer Filler	NT6X05AX		4	47		AP
LCMI Filler Kit	NTBX31AB		1	33		AP

RULES:

AP 1) When PEC NTZZ33CA is ordered, these items are provided.

CABINETIZED COMMON PERIPHERAL EQUIPMENT FRAME, MODEL B

PEC CODE: NTZZ47GD

CPC CODE: B0242401

RATING: Standard

REPLACES: NTZZ47GC

REPLACED BY: None

ABBREVIATION NAME: CCPE (Cabinetized Common Peripheral Equip)
CDTE (Digital Trunk Equipment Cabinet)
CLTE (Line Trunk Equipment Cabinet)
CSME (Subscriber Module Equipment Cabinet)
CLGE (Cabinetized Line Group Equipment)

ENGINEERING DESCRIPTION: NTZZ47GD is the cabinetized version of the
ISDN-Ready Common Peripheral Controller
Equipment Frame.

REFERENCE DOCUMENTATION: MSRX36BA 00 20

MARKETS: Applicable markets:

US
CALA
Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ47GD EMB2-09-CPE-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 01 31	ECM 373 35	Create NTZZ47GD Building Block, which contains NTRX36BA at Release 18 or higher and does not contain NTRX2549 EMI Shielding Kit.
95 03 10	ECM 468 07	EC 011-20136 incorporated new circuit packs and packfills. Revise RUL2 to show NTZZ02DA for SMA. Add NT6X02WE and associated rule. Add TMS provisioning rules. Other miscellaneous changes.
95 03 17	ECM 683 15	Clarify provisioning rules for NTRX36KA and NTRX36KB per ET65803.
95 04 05	ECM 468 08	Add DS-1 provisioning rule for TMS.
95 04 10	ECM 676 09	Add info on new SMA Building Blocks
95 04 27	ECM 373 40	Add Peripheral Remote Loader CP NT7X05AA (NTZZ02UA) per EC#024-93907.
95 05 18	ECM 373 41	Remove SMA as an application for the PL CP NT7X05AA (NTZZ02UA) per PLM request.
95 08 17	ECM 678 22	Update per EC#024-94576 introducing NT6X02WG Product Change Kit
95 09 18	ECM 468 09	Add OC ETMS.
95 11 08	ECM 678 24	EC 024-94348 - Update to show packfills that have been previously MD'd. EC 011-21580 - Introduces NT6X02TJ packfill that has Unified Processor and Enhanced Processor & Terminal PB as provisionable. New BBs are created with new packfill to replace old ones. Also, BBs are created for Unified and Enhanced Processors and Enhanced ISDN Pre-Processor CP. EC 024-95229 - Emergency EC that makes the NT6X69AD required for all new production and not just for ADSI-SCWID feature. As a result, created NTZZ04HD/KD and NTZZ17ST/TT for DTC/DTCI since 6X69AD was not previously required. ET 77073 - Correct information that states that NT6X02DU is part of

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 01	ECM 678 25	NTZZ03BS & NTZZ03BE Building Blocks. ET 33099-Remove NT6X0205 as a single provisionable item since it is AP in NTZZ03ED and will be provided in NTZZ03EF.
96 04 26	ECM 373 45	Show NTZZ03BE as MD since NT6X69AD is used with XPM+ on SMS, not NT6X69AC. Introduce the GTR NT6X92EA through NTZZ02FC which will eventually replace all UTRs. Show NTZZ97AA, NTZZ02DA & NTZZ03GA MD as part of the Functional Block initiative. EC 024-95240 Introduces NT6X40AD/FB which replace NT6X40AC/FA, respectively. As a result, NTZZ02HN and NTZZ02GC are created. Show NT2X70AY as an orderable item. Clarify that NT6X50AB is required for fiber applications. Show NT6X80BA as MD and replaced by NT6X80BB. Add ETMS to ABBR field of NTZZ17GJ. Show NTZZ03BE as MD since NT6X69AD is used with XPM+ on SMS, not NT6X69AC. Clarify NT6X69AC/AD information. The NTB01BA is currently provided in the SMA module level BBs, so remove rule for providing NTZZ03AJ with SMA.
96 09 20	ECM 373 46	Introduce the NTAX74AA (NTZZ03AC). Clarify the notes for NTB02AA/BA, NT6X40FB/AD, NT6X78AB, NT6X69AD and NT6X44AA per EC024-96600. Also, correct format errors and add note for the Large Tandem configuration. MD NTZZ17GC. Add changes to NTZZ17AT and NTZZ47GD.
96 11 22	ECM 314 23	Per SR RR60487 added note for E911 application restrictions on SMU. Per EC 024-96637, update rules/flag-list to reflect MD of NTZZ02FA and NTZZ02SA. Per EC 024-96589, update rules/flag-list to reflect MD of NTZZ03MB.

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 07	ECM 373 47	Per SR RR6B404 update notes wrt NT6X0251 (remove from RUL9). Per ECD 024-96637 MDs the NT6X40BA, which MDs the NTZZ02AA.
97 03 11	ECM 714 02	MD SMA per EC 024 97180 /024 97876 Provision NTMX76AB per ECD 024 97290 Clarify notes re SMU and E911 Apps Update flaglist to reflect ZZ03RB as replacement for NTZZ03MB Reflect un-MD of NTZZ17GJ, and the introduction of the NTZZ17GM Make minor corrections per SRs RR6D709, RR70833
97 04 01	ECM 714 03	ECD 024-97224 MDs the NT6X02ET and replaces it with NT6X02EU.
97 04 23	ECM 714 04	EC 024 97732 introduces new packfill NT6X02CX for ESMU, and associated upgrade kit. Introduce SMR to SMU and SMS to SMU change kits. New BBs for new packfill NT6X02CX.
97 05 30	ECM 714 05	ECD 024 97867 MDs the NT6X02ES, NTZZ03RK, and NTZZ03RB.
97 08 26	ECM 714 06	Implement ECD 024-98354, which removes NTAX74AA provisioning from Domestic XPM host peripherals, except for DTCI in MCI ACD applications.

The Cabinetized Common Peripheral Equipment Frame, Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cab. Common Periph. Equip. Cabinet	NTRX36BA NTRX25AA		1 1			AP AP-01
Modular Supervisory Pnl Kit	NTRX3656	MSP	1	61		AP
Modular Supervisory Panel	NTRX40AA		1	61		AP-02
MSP Alarm Module	NTRX41AA		1	61	5-6	AP-02
MSP Fuse Card	NTRX43AA		5	61	7-11	AP-02
MSP Breaker Card (15A)	NTRX42BA		2	61	12, 13	AP-02
MSP C-Feed Card	NTRX53AA		1	61	14	AP-02
MSP Fan Mgm Unit Card	NTRX54BA		1	61	19	AP
Desig Label (NTRX54BA)	P0741680		1	61	19	AP
MSP Power Dist Assy	P0737547		1	61	02R	AP-02
MSP Power Dist Assy	P0737326		1	61	04R	AP-02
MSP Power Dist Assy	P0737326		1	61	15R	AP-02
Fuse Designation Label	P0742014		1	61		AP-02
Single Blank Panel 1.20"	P0734476		5	61	18	AP-02
					1R, 3R	
					18R, 20R	
Double Blank Panel 2.40"	P0734475		2	61	16-17	AP-02
					16R-17R	
Quad Blank Panel 4.80"	P0734474		1	61	20-23	AP-01
QFF1A Fuse (1.33AMP)	A0205202			61		RUL12
Desig Disc (1.33AMP)	P097P235			61		RUL12
Label Sheet, Fuse Designation	P0800315		1	61		RUL12
LGC Common CP	NTZZ02BA	LGC		33		RUL1
LTC Common CP	NTZZ02CA	LTC		33		RUL1
DTC Common CP	NTZZ04BA	DTC		33		RUL1
DTC w/DWS Common CP	NTZZ04BB	DTC		33		RUL1
LGC+ w/EDC Common CP	NTZZ02QM	LGC+		33		RUL1
LGC+ w/EDC and ADSI/SCWID	NTZZ02QN	LGC+		33		RUL1
# LGC+ ADSI/SCWID Common CP	NTZZ02QH	LGC+		33		RUL1
# LGC+ Common CP	NTZZ02QA	LGC+		33		RUL1
LGC+ Common CP	NTZZ02QJ	LGC+		33		RUL1
LTC+ w/EDC Common CP	NTZZ02PM	LTC+		33		RUL1
LTC+ w/EDC and ADSI/SCWID	NTZZ02PN	LTC+		33		RUL1
# LTC+ ADSI/SCWID Common CP	NTZZ02PH	LTC+		33		RUL1
# LTC+ Common CP	NTZZ02PA	LTC+		33		RUL1
LTC+ Common CP	NTZZ02PJ	LTC+		33		RUL1
# DTC+ Common CP	NTZZ04HB	DTC+		33		RUL1
DTC+ Common CP	NTZZ04HD	DTC+		33		RUL1

NTZZ47GD

Active Equipment

EMB2-09-CPE-3

Cabinetized Common Peripheral Equipment Frame, Model B Page 5

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# DTC+ w/DWS Common CP	NTZZ04KA	DTC+		33		RUL1
DTC+ w/DWS Common CP	NTZZ04KD	DTC+		33		RUL1
# SMA Common CP (BCS-35)	NTZZ03SP	SMA		33		RUL1
# SMA Common CP (BCS-35)	NTZZ03ST	SMA		33		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SD	SMA		33		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SV	SMA		33		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SW	SMA		33		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SR	SMA		33		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SS	SMA		33		RUL1
SMS Common CP	NTZZ03BG	SMS		33		RUL1
# SMS+ Common CP	NTZZ03BE	SMS+		33		RUL1
SMS+ Common CP (BCS-36+)	NTZZ03BS	SMS+		33		RUL1
SMS-R Common CP	NTZZ03EF	SMS-R		33		RUL1
SMS-R+ Common CP	NTZZ03ED	SMS-R+		33		RUL1
# SMU Common CP	NT6X02EP	SMU		33		RUL1
# SMU Common CP	NT6X02ET	SMU		33		RUL1
SMU Common CP	NT6X02EU	SMU		33		RUL1
# SMU+ Common CP	NTZZ03DE	SMU+		33		RUL1
SMU+ Common CP (min BCS-36+)	NTZZ03DK	SMU+		33		RUL1
# SMUI Common CP	NTZZ03MB	SMUI		33		RUL1
# SMUI+ Common CP	NTZZ03RB	SMUI+		33		RUL1
SMUI+ Common CP	NTZZ03RC	SMUI+		33		RUL1
# SMUI+ Common CP (BCS-36+)	NTZZ03RK	SMUI+		33		RUL1
SMUI+ Common CP (BCS-36+)	NTZZ03RL	SMUI+		33		RUL1
Time Switch CP	NT6X44CA			33	14	RUL1
Enhanced Time Switch	NTAX78AB			33	14	RUL1
CPCI Common CP	NTZZ17CA	LGCI LTCI DTCI		33		RUL1
CPCI Common CP	NTZZ17GB	TMS		33		RUL1
# CPCI+ Common CP	NTZZ17GC	LGCI+ LTCI+ DTCI+ ETMS		33		RUL1
CPCI+ Common CP	NTZZ17GJ	LGCI+ LTCI+ DTCI+		33		RUL1
LTCI+ Common CP	NTZZ17QM	LTCI+		33		RUL1
LTCI+ Common CP	NTZZ17QS	LTCI+		33		RUL1
# LTCI+ Common CP	NTZZ17GK	LTCI+		33		RUL1
# LTCI+ Common CP	NTZZ17GL	LTCI+		33		RUL1
TMS/ETMS LTCI+	NTZZ17GM	TMS/ETMS		33		RUL1

NTZZ47GD

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGCI+ Common CP	NTZZ17RM	LGCI+		33		RUL1
LGCI+ Common CP	NTZZ17RS	LGCI+		33		RUL1
# LGCI+ w/DWS Common CP	NTZZ17TU	LGCI+		33		RUL1
# LGCI+ w/DWS Common CP	NTZZ17TV	LGCI+		33		RUL1
DTCI+ Common CP	NTZZ17SM	DTCI+		33		RUL1
DTCI+ Common CP	NTZZ17ST	DTCI+		33		RUL1
DTCI+ Common CP	NTZZ17SU	DTCI+		33		RUL1
DTCI+ Common CP	NTZZ17SV	DTCI+		33		RUL1
CPCI+ w/DWS Common CP	NTZZ17TM	CPCI+		33		RUL1
# CPCI+ w/DWS Common CP	NTZZ17TN	CPCI+		33		RUL1
CPCI+ w/DWS Common CP	NTZZ17TT	CPCI+		33		RUL1
# CPCI+ w/DWS Common CP	NTZZ17TH	CPCI+		33		RUL1
Filler Face Plate Kit	NT6X02AB			33		RUL1
Controller Array Shf Assy	NT6X0223	CPA1	1	47		AP-01
Controller Array Shf Assy	NT6X0223	CPA0	1	33		AP-01
# 2 DS-1 P-Side EFF Interfaces	NTZZ02DA			47,33	1-5	RUL2
DS-1 EFF Interface CP	NT6X50AB			47,33	1-5	RUL2
Des. Label (NT6X50AB)	P0690976			47,33	1-5	RUL2
# 2 DS-1 P-Side Interfaces	NTZZ03GA			47,33	1-5	RUL2
DS-1 Interface CP	NT6X50AA			47,33	1-5	RUL2
Des. Label (NT6X50AA)	P0626878			47,33	1-5	RUL2
DS0A Signaling Interface	NTZZ04AA			47,33	1-5	RUL2
2 SCM DS-1 Interface CP	NTZZ03FA			47,33	1-5	RUL2
DS-1 Interface CP	NT6X85AC			47,33	1-5	RUL2
Desig. Label for NT6X85AC	P0801996			47,33	1-5	RUL2
# D-Channel Handler (DCH)	NTZZ17BA			47,33	1-5	RUL12
Enhanced D-Channel Handler	NTZZ17BB			47,33	1-5	RUL12
10 DS30A LCM Interfaces	NTZZ02KA			33	6,7	RUL7
Unified Processor	NTZZ03AB			33	12	RUL24
Enhanced Processor	NTZZ03AC			33	12	RUL24
Continuity Tone Detector	NTZZ04CA			33	13	RUL8
CLASS Modem Resource CP	NTZZ02EA			33	13	RUL3
CLASS Modem Resource CP	NTZZ02EA			33	16	RUL3
# CLASS Modem Resource CP	NTZZ97AA			33	13	RUL3
# CLASS Modem Resource CP	NTZZ97AA			33	16	RUL3
Enhanced ISDN Pre-Processor	NTZZ03AJ			33	16	RUL25
Peripheral Loader CP	NTZZ02UA			33	15,17	RUL23
# 30 Universal Tone Rcvr Ccts	NTZZ02FA			33	15,16	RUL4
# 30 Universal Tone Rcvr Ccts	NTZZ02FB			33	15,16	RUL4
30 Global Tone Rcvr Ccts	NTZZ02FC			33	15,16	RUL4
# 30 Universal Tone Rcvr (SMS)	NTZZ02FA			33	17	RUL4
# 30 Universal Tone Rcvr (SMS)	NTZZ02FB			33	17	RUL4

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
30 Global Tone Rcvr (SMS)	NTZZ02FC			33	17	RUL4
Msg Protocol Ckt, ADSI/SCWID	NTZZ02RB			33	18	RUL20
Msg Protocol Ckt, HDLC	NTZZ02RC			33	18	RUL13
Msg Protocol Ckt, HDLC	NTZZ02RD			33	18	RUL13
# Ring/Pad Ckt	NTZZ02SA			33	19	RUL18
# Ring/Pad Ckt	NT6X80BA			33	19	RUL18
# Desig. Label for NT6X80BA	P0707642			33	19	RUL18
Ring/Pad Ckt, Freq Sel Ring	NTZZ02SB			33	19	RUL18
Specialized Tone Recv.	NT6X62AA			33, 47	16	RUL16
Specialized Tone Recv.	NT6X62AB			33, 47	16	RUL16
# 16 DS30 Network Interface	NTZZ02GA			33	22	RUL5
16 DS30 Network Interface	NTZZ02GC			33	22	RUL5
# 4 DS30 Network Interface	NTZZ02AA			33	22	RUL5
# DS512 Network Interface CP	NTZZ02HM			33	22	RUL5
DS512 Network Interface CP	NTZZ02HN			33	22	RUL5
Universal Connector Bracket	NT6X02UF			47, 33	22R	AP-01
NT2X70AF Upgrade Kit	NT2X70AY			33		RUL26
Filler Face Plate 0.875	NT0X50AA			47, 33	1-7, 13, 15-17, 19, 23	RUL6
Jumper Kit for Base	NTRX36NI			33		RUL14
SMS-R Cable Kit	NTRX3662			33		RUL15
LGC Common CP	NTZZ02BA	LGC		05		RUL1
LTC Common CP	NTZZ02CA	LTC		05		RUL1
DTC Common CP	NTZZ04BA	DTC		05		RUL1
DTC w/DWS Common CP	NTZZ04BB	DTC		05		RUL1
LGC+ w/EDC Common CP	NTZZ02QM	LGC+		05		RUL1
LGC+ w/EDC with ADSI/SCWID	NTZZ02QN	LGC+		05		RUL1
# LGC+ Common CP	NTZZ02QA	LGC+		05		RUL1
LGC+ Common CP	NTZZ02QJ	LGC+		05		RUL1
LTC+ w/EDC Common CP	NTZZ02PM	LTC+		05		RUL1
LTC+ w/EDC and ADSI/SCWID	NTZZ02PN	LTC+		05		RUL1
# LTC+ Common CP	NTZZ02PA	LTC+		05		RUL1
LTC+ Common CP	NTZZ02PJ	LTC+		05		RUL1
# DTC+ Common CP	NTZZ04HB	DTC+		05		RUL1
DTC+ Common CP	NTZZ04HD	DTC+		05		RUL1
# DTC+ w/DWS Common CP	NTZZ04KA	DTC+		05		RUL1
DTC+ w/DWS Common CP	NTZZ04KD	DTC+		05		RUL1
# SMA Common CP (BCS-35)	NTZZ03SP	SMA		05		RUL1
# SMA Common CP (BCS-35)	NTZZ03ST	SMA		05		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SD	SMA		05		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SV	SMA		05		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SW	SMA		05		RUL1

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# SMA Common CP (BCS36/MVI)	NTZZ03SR	SMA		05		RUL1
# SMA Common CP (BCS36/MVI)	NTZZ03SS	SMA		05		RUL1
SMS Common CP	NTZZ03BG	SMS		05		RUL1
# SMS+ Common CP	NTZZ03BE	SMS+		05		RUL1
SMS+ Common CP (BCS-36+)	NTZZ03BS	SMS+		05		RUL1
SMS-R Common CP	NTZZ03EF	SMS-R		05		RUL1
SMS-R+ Common CP	NTZZ03ED	SMS-R+		05		RUL1
# SMU Common CP	NT6X02EP	SMU		05		RUL1
# SMU Common CP	NT6X02ET	SMU		05		RUL1
SMU Common CP	NT6X02EU	SMU		05		RUL1
# SMU+ Common CP	NTZZ03DE	SMU+		05		RUL1
SMU+ Common CP (min BCS-36+)	NTZZ03DK	SMU+		05		RUL1
# SMUI Common CP	NTZZ03MB	SMUI		05		RUL1
# SMUI+ Common CP	NTZZ03RB	SMUI+		05		RUL1
SMUI+ Common CP	NTZZ03RC	SMUI+		05		RUL1
# SMUI+ Common CP (BCS-36+)	NTZZ03RK	SMUI+		05		RUL1
SMUI+ Common CP (BCS-36+)	NTZZ03RL	SMUI+		05		RUL1
Time Switch CP	NT6X44CA			05	14	RUL1
Enhanced Time Switch	NTAX78AB			05	14	RUL1
# CPCI Common CP	NTZZ17CA	LGCI LTCI DTCI		05		RUL1
# CPCI Common CP	NTZZ17GB	TMS		05		RUL1
# CPCI+ Common CP	NTZZ17GC	LGCI+ LTCI+ DTCI+ ETMS		05		RUL1
CPCI+ Common CP	NTZZ17GJ	LGCI+ LTCI+ DTCI+		05		RUL1
LTCI+ Common CP	NTZZ17QM	LTCI+		05		RUL1
LTCI+ Common CP	NTZZ17QS	LTCI+		05		RUL1
# LTCI+ Common CP	NTZZ17GK	LTCI+		05		RUL1
# LTCI+ Common CP	NTZZ17GL	LTCI+		05		RUL1
TMS/ETMS Common CP	NTZZ17GM	TMS/ETMS		05		RUL1
LGCI+ Common CP	NTZZ17RM	LGCI+		05		RUL1
LGCI+ Common CP	NTZZ17RS	LGCI+		05		RUL1
# LGCI+ w/DWS Common CP	NTZZ17TU	LGCI+		05		RUL1
# LGCI+ w/DWS Common CP	NTZZ17TV	LGCI+		05		RUL1
DTCI+ Common CP	NTZZ17SM	DTCI+		05		RUL1
DTCI+ Common CP	NTZZ17ST	DTCI+		05		RUL1
DTCI+ Common CP	NTZZ17SU	DTCI+		05		RUL1
DTCI+ Common CP	NTZZ17SV	DTCI+		05		RUL1

NTZZ47GD

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCI+ w/DWS Common CP	NTZZ17TM	CPCI+		33		RUL1
# CPCI+ w/DWS Common CP	NTZZ17TN	CPCI+		33		RUL1
CPCI+ w/DWS Common CP	NTZZ17TT	CPCI+		33		RUL1
# CPCI+ w/DWS Common CP	NTZZ17TH	CPCI+		33		RUL1
Controller Array Shf Assy	NT6X0223	CPA1	1	19		AP-01
Controller Array Shf Assy	NT6X0223	CPA0	1	05		AP-01
# 2 DS-1 P-Side EFF Interfaces	NTZZ02DA			19,05	1-5	RUL2
DS-1 EFF Interface CP	NT6X50AB			19,05	1-5	RUL2
Des. Label (NT6X50AB)	P0690976			19,05	1-5	RUL2
# 2 DS-1 P-Side Interfaces	NTZZ03GA			19,05	1-5	RUL2
DS-1 Interface CP	NT6X50AA			19,05	1-5	RUL2
Des. Label (NT6X50AA)	P0626878			19,05	1-5	RUL2
DS0A Signaling Interface	NTZZ04AA			19,05	1-5	RUL2
2 SCM DS-1 Interface	NTZZ03FA			19,05	1-5	RUL2
DS-1 Interface CP	NT6X85AC			19,05	1-5	RUL2
Desig. Label for NT6X85AC	P0801996			19,05	1-5	RUL2
# D-Channel Handler (DCH)	NTZZ17BA			19,05	1-5	RUL12
Enhanced D-Channel Handler	NTZZ17BB			19,05	1-5	RUL12
DS30A LCM Interface	NTZZ02JA			05	6	RUL7
Unified Processor	NTZZ03AB			05	12	RUL24
Enhanced Processor	NTZZ03AC			05	12	RUL24
Continuity Tone Detector	NTZZ04CA			05	13	RUL8
CLASS Modem Resource CP	NTZZ02EA			05	13	RUL3
CLASS Modem Resource CP	NTZZ02EA			05	16	RUL3
# CLASS Modem Resource CP	NTZZ97AA			05	13	RUL3
# CLASS Modem Resource CP	NTZZ97AA			05	16	RUL3
Enhanced ISDN Pre-Processor	NTZZ03AJ			05	16	RUL25
Peripheral Loader CP	NTZZ02UA			05	15,17	RUL23
# 30 Universal Tone Rcvr Ccts	NTZZ02FA			05	15,16	RUL4
# 30 Universal Tone Rcvr Ccts	NTZZ02FB			05	15,16	RUL4
30 Global Tone Rcvr Ccts	NTZZ02FC			05	15,16	RUL4
# 30 Universal Tone Rcvr (SMS)	NTZZ02FA			05	17	RUL4
# 30 Universal Tone Rcvr (SMS)	NTZZ02FB			05	17	RUL4
30 Global Tone Rcvr (SMS)	NTZZ02FC			05	17	RUL4
Msg Protocol Ckt, ADSI/SCWID	NTZZ02RB			05	18	RUL20
Msg Protocol Ckt, HDLC	NTZZ02RC			05	18	RUL13i
Msg Protocol Ckt, HDLC	NTZZ02RD			05	18	RUL13i
# Ring/Pad Ckt	NTZZ02SA			05	19	RUL18
# Ring/Pad Ckt	NT6X80BA			05	19	RUL18
# Desig. Label for NT6X80BA	P0707642			05	19	RUL18
Ring/Pad Ckt, Freq Sel Ring	NTZZ02SB			05	19	RUL18
Specialized Tone Recv.	NT6X62AA			05,19	16	RUL16
Specialized Tone Recv.	NT6X62AB			05,19	16	RUL16
# 16 DS30 Network Interface	NTZZ02GA			05	22	RUL5

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
16 DS30 Network Interface	NTZZ02GC			05	22	RUL5
# 4 DS30 Network Interface	NTZZ02AA			05	22	RUL5
# DS512 Network Interface CP	NTZZ02HM			05	22	RUL5
DS512 Network Interface CP	NTZZ02HN			05	22	RUL5
Universal Connector Bracket	NT6X02UF			19,05	22R	AP-01
NT2X70AF Upgrade Kit	NT2X70AY			05		RUL26
Filler Face Plate 0.875	NT0X50AA			19,05		RUL6
Filler Face Plate 0.875	NT0X50AA			19,05	1-7,13, 15-17, 19,23	RUL6
Jumper Kit for Base	NTRX36NI			05		RUL14
SMS-R Cable Kit	NTRX3662			05		RUL15
XPM to XPM+ Change Kit	NTZZ99AN			05,33		RUL10
NT6X69AD Change Kit	NT6X02WB		1	05,33		RUL21
NT6X86AB Change Kit	NT6X02WC		1	05,33		RUL19
NT6X80BB/86AB Change Kit	NT6X02WG		1	05,33		RUL19
NT6X80BB Change Kit	NT6X02WE		1	05,33		RUL22
NTAX78AB Upgrade Kit	NT6X02CY		1	05		RUL27
SMR to SMU Kit	NT6X02YA		1	05		RUL28
SMR to SMS Kit	NT6X02YB		1	05		RUL29
Cooling Unit	NTRX92AA	CU	1	00		AP
Cover Plate Kit	NTRX3654		16	05,33		AP
Copper Interface Kit	NTRX3660			19,47		RUL9
Cover Plate Kit	NTRX3652			19,47		RUL9
External Power kit	NTRX36KA		1			RUL11
Internal Horizontal Power	NTRX36KB		1			RUL11
C28 English Labeling Kit	NTRX3541		1			AP
C28 Cabinet Mechanicals	NTRX25AA					NOTE4
Cabinet Power and Grounding	NTZX16CA					NOTE5
Door and eqp labels	MS0X60AA					NOTE6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ02SA	MD	NTZZ02SB
NTZZ03MB	MD	NTZZ03RK
NTZZ03SP	MD	NTZZ03ST
NTZZ03SD	MD	NTZZ03SV
NT6X02EP	MD	NT6X02ET
NT6X02ET	MD	NT6X02EU
NTZZ03SR	MD	NTZZ03SS
NTZZ03ST	MD	None
NTZZ03SV	MD	NTZZ03SW
NTZZ04HB	STD*	NTZZ04HD
NTZZ04KA	STD*	NTZZ04KD
NTZZ02PA	STD*	NTZZ02PJ
NTZZ02QA	STD*	NTZZ02QJ
NTZZ03BE	MD	NTZZ03BS
NTZZ03DE	STD*	NTZZ03DK
NTZZ03RB	STD*	NTZZ03RK
NTZZ17RM	STD*	NTZZ17RS
NTZZ17QM	STD*	NTZZ17QS
NTZZ97AA	MD	NTZZ02EA
NTZZ02DA	MD	NT6X50AB
NTZZ03GA	MD	NT6X50AA
NT6X80BA	MD	NTZZ02SB
P0707642	MD	NTZZ02SB
NTZZ02FA	MD	NTZZ02FC
NTZZ02FB	STD*	NTZZ02FC
NTZZ02GA	STD*	NTZZ02GC
NTZZ02HM	STD*	NTZZ02HN
NTZZ17CA	MD	NTZZ17RM or NTZZ17QM or NTZZ17SM
NTZZ17GB	MD	NONE
NTZZ17GC	MD	NONE
NTZZ17GK	MD	None
NTZZ17GL	MD	None
NTZZ17TH	MD	None
NTZZ17TN	MD	None
NTZZ17TU	MD	None
NTZZ17TV	MD	None
NTZZ03RB	MD	NTZZ03RC
NTZZ03RK	MD	NTZZ03RL

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

* Rate change pending. Check product availability.

NOTES:

- 1) CABINETIZED COMMON PERIPHERAL EQUIPMENT NTZZ47GD is the cabinetized version of the general purpose Common Peripheral Controller Equipment Frame which houses Line Group Controller (LGC), Digital Trunk Controller (DTC), Line Trunk Controller (LTC), Subscriber Module for SLC-96 (SMS), Subscriber Module Rural (SMR), Subscriber Module Urban (SMU), Subscriber Module-100S Remote (SMS-R), ISDN Line Group Controller (LGCI), ISDN Line Trunk Controller (LTCI), ISDN Digital Trunk Controller (DTCI), TOPS Message Switch (TMS), ISDN Subscriber Module Urban (SMUI), Subscriber Module for Accessnode (SMA) modules.

Each of these modules is housed in two adjacent shelves (i.e. a pair of shelves on positions 47 and 33 and a pair of shelves on positions 19 and 05).

- 2) Four distinct functional names are associated with this hardware:

"Cabinetized Line Group Equipment", (CLGE) defines the intended function where the cabinet is configured specifically to house LGC/LGCI.

"Cabinetized Digital Trunk Equipment", (CDTE) defines the intended function where the cabinet is configured specifically to house DTC/DTCI. A toll office requires only CDTE cabinets.

"Cabinetized Line Trunk Equipment", (CLTE) defines the intended function where the cabinet is configured specifically to house LTC/LTCI/TMS.

"Cabinetized Subscriber Module Equipment", (CSME) defines the intended function where the cabinet is configured specifically to house SMR, SMS, SMU, SMS-R, SMUI, or SMA.

CPCI modules of various types may be combined on cabinets where required. The cabinet name will be derived from the bottom module within the cabinet:

Bottom Module	Resulting Cabinet Name	Abbreviation
LGCI	ISDN Line Group Equipment	CLGE
LTCI	ISDN Line Trunk Equipment	CLTE
DTCI	ISDN Digital Trunk Equipment	CDTE
SMUI	ISDN Subs module for DMS-1 Urban	CSME

- 3) One of four functional names can be associated with a CPCI module: LGCI, LTCI, DTCI, and SMUI. The function of the CPCI module is determined by the ISDN access modes (BRI/PRI) and the types of existing services (non-ISDN LCM, trunks) to be supported by the module. The supported access modes, the resulting name given to the CPCI module, and the planned BCS availability of each function are as follows:

Access Modes Supported By CPCI Module**	Resulting Module Name	Abbrev.	Proposed BCS Availability*
ISDN BRI, Non-ISDN LCM, DPN Access	ISDN Line Group Controller	LGCI	BCS-27
ISDN BRI, Non-ISDN LCM, DPN Access,	ISDN Line Trunk Controller	LTCI	BCS-28

Non-ISDN trunks			
ISDN PRI, Non-ISDN trunks	ISDN Digital Trunk Controller	DTCI	BCS-29
ISDN BRA, MBS Services	ISDN Subs module for DMS-1 Urban	SMUI	BCS-34

* - Confirm availability of software features before ordering.

** - Non-ISDN Trunks employ A/B bit signaling.

- 4) NTZZ47GD has system level provisionable items covering requirements for the following:

Seismic Zone provisioning
Grounding options provisioning
Cable routing options provisioning
Cabinet Fail Lamp provisioning
Cabinet door provisioning

For details of the above refer to Engineering Manual Section NTRX25AA, C28 Cabinet Mechanical Assembly.

- 5) For power and grounding information refer to Engineering Manual Section for NTZX16CA Cabinetized Power and Grounding.
- 6) Refer to MS0X60AA for equipment labeling.
- 7) Support for the Analog Display Services Interface (ADSI) and the Spontaneous Call Waiting ID (SCWID) feature of BCS-36+ requires the Unified Processor (XPM+) CPs, NT6X78 Class Modem Resource (CMR) CPs, NT6X92 Universal Tone Receiver (UTR) CPs, and the NT6X69AD Message Protocol and Tone CPs. ADSI and SCWID are line features and are not applicable to DTC modules. The Building Blocks identified as "minimum BCS-36+" are equipped with NT6X69AD CPs for these features.

The NT6X69AD cannot be used in DMS-10 applications, SMSR applications, or SMS with MP/SP with XPM03 or lower soft-

ware loads. SMS supports NT6X69AD with XPM+ with BCS36 and later. In the case

of the SMS-R+ module, there is no additional Building Block because the necessary CPs to support the ADSI/SCWID feature must be provided in the Remote Switching Center (RSC) which is hosting the SMS-R, rather than in the SMS-R module itself.

8) The Large Tandem configuration of DMS-200 (NOT DMS-100/200) and DMS-250 systems are those which support more than 140 DTC7's and/or more than 40,000 ISUP trunks. The DMS Large Tandem differs from the basic products mainly in the larger number of DTC's and ISUP trunks that are supported. Refer to the DMS Large Tandem ECM 598 while engineering offices in those larger configurations.

- 9) SMUs supporting LDT PSAPS (E911 service) must remain dedicated only to LDTPSAPS to ensure priority service to E911. Due to this consideration, SMU within LDTs will NOT allow NT6X92BB/BC/EA (UTR/GTR) to be datafilled.

RULES:

- AP 1) When PEC NTZZ47GD is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NTRX36BA Frame, and is shown here for completeness.
- AP-02 1) This PEC is always provided on the NTRX3656 MSP, and is shown here for completeness.
- RUL1 1) The following controller modules may be mounted in the NTZZ47GD Cabinet. Provide one appropriate common circuit pack set (packfill) to equip one peripheral controller module (both shelves). Additional circuit packs may also be required, depending on module type and customer requirements.

MODULE TYPE

COMMON CP

#SMA, AccessNode Interface NTZZ03SP (minimum BCS-35)
 #SMA, AccessNode Interface NTZZ03ST (minimum BCS-35)
 #SMA, Multivendor Interf NTZZ03SD (minimum BCS-36)
 #SMA, Multivendor Interf NTZZ03SV (minimum BCS-36)

#SMA, Multivendor Interf	NTZZ03SW (minimum BCS-36)
#SMA, Multivendor Interf	NTZZ03SR (minimum BCS-36)
#SMA, Multivendor Interf	NTZZ03SS (minimum BCS-36)
SMS	NTZZ03BG
SMS+	NTZZ03BE
SMS+	NTZZ03BS (minimum BCS-36+)
SMU	NT6X02EP
#SMU	NT6X02ET
SMU	NT6X02EU
SMU+	NTZZ03DE
SMU+	NTZZ03DK (minimum BCS-36+)
SMS-R	NTZZ03EF
SMS-R+	NTZZ03ED
LGC	NTZZ02BA
LTC	NTZZ02CA
DTC	NTZZ04BA
DTC w/DWS	NTZZ04BB
CPCI, TMS	NTZZ17GB
CPCI	NTZZ17CA
CPCI w/DWS	NTZZ17DA
Product Change Kit (DWS)	NTZZ99AM (upgrades only)
LGC+	NTZZ02QA
LGC+	NTZZ02QJ (minimum BCS-36+)
LTC+	NTZZ02PA
LTC+	NTZZ02PJ (minimum BCS-36+)

NOTES:

DWS - Dialable Wideband Services feature.
 EDC - Extended Distance Capability feature.
 TMS - TOPS Message Switch application.
 ETMS - Enhanced TOPS Message Switch application.
 ADSI - Analog Display Services Interface feature.
 SCWID - Spontaneous Call Waiting ID feature.
 MVI - Multiple Vendor Interface feature.

MODULE TYPE	COMMON CP
DTC+	NTZZ04HB
DTC+	NTZZ04HD
DTC+ w/DWS	NTZZ04KA
DTC+ w/DWS	NTZZ04KD
LGC+ w/EDC	NTZZ02QM
LGC+ w/EDC, ADSI/SCWID	NTZZ02QN
LTC+ w/EDC	NTZZ02PM
LTC+ w/EDC, ADSI/SCWID	NTZZ02PN
# CPCI+, ETMS	NTZZ17GC
# CPCI+, ETMS	NTZZ17GK

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# CPCI+ w/DWS	NTZZ17TM
# CPCI+ w/DWS	NTZZ17TN
CPCI+	NTZZ17GJ (minimum BCS-36+)
SMUI	NTZZ03MB (manufacture dis-
continued)	
# SMUI+	NTZZ03RB (minimum BCS-36)
SMUI+	NTZZ03RC
# SMUI+	NTZZ03RK (minimum BCS-36+)
SMUI+	NTZZ03RL (minimum BCS-36+)
LTCI	NTZZ17QA
LGCI	NTZZ17RA
DTCI	NTZZ17SA
LTCI+	NTZZ17QM
LTCI+	NTZZ17QS (minimum BCS-36+)
LGCI+	NTZZ17RM
LGCI+	NTZZ17RS (minimum BCS-36+)
DTCI+	NTZZ17SM
DTCI+	NTZZ17ST
# DTCI+ w/DWS	NTZZ17TT
# DTCI+ w/DWS	NTZZ17TU

NOTES:

DWS - Dialable Wideband Services feature.
 EDC - Extended Distance Capability feature.
 TMS - TOPS Message Switch application.
 ETMS - Enhanced TOPS Message Switch application.
 ADSI - Analog Display Services Interface feature.
 SCWID - Spontaneous Call Waiting ID feature.
 MVI - Multiple Vendor Interface feature.

- 2) Equip peripheral controller modules per customer requirements. One NTZZ47GD CCPE Cabinet can accommodate a maximum of two Common Peripheral Controller modules. Each module will occupy shelf position X and X+14 (where X = 5, or 33).
- 3) If the second module is not equipped on the NTZZ47GD Cabinet, provide one (1) Common Peripheral Controller module Filler Face Plate, NT6X02AB.
- 4) Provide the NTZZ17CA ISDN Common Peripheral Controller Module for non-DWS and non-TMS applications. The NTZZ17CA contains the EISP card. The NTZZ17GB contains the ISP card.

- 5) Provide the NTZZ17DA ISDN Common Peripheral Controller Module for DWS applications.
- 6) Provide the NTZZ04BA Digital Trunk Controller for non-DWS applications.
- 7) Provide the NTZZ04BB Digital Trunk Controller for DWS applications.
- 8) Provide the NTZZ99AM Product Change Kit to upgrade an NTZZ17CA to an NTZZ17DA and NTZZ04BA to NTZZ04BB.
- 9) Provide one NTZZ02QJ to equip an LGC module for Unified Processor (XPM+) applications.
- 10) Provide one NTZZ02PJ to equip an LTC module for Unified Processor (XPM+) applications.
- 11) Provide one NTZZ04HD to equip a DTC module for Unified Processor (XPM+) applications.
- 12) Provide one NTZZ17ST to equip an ISDN DTC module for Unified Processor (XPM+) applications.
- 13) SMA has been MD'd.
- 14) Provide one NTZZ02QM to equip a LGC module to host an RCC2 that is equipped for Extended Distance Capability. Provide one NTZZ02QN, instead of the NTZZ03QM, to equip an LGC module to host an RCC2 equipped for extended distance and ADSI/SCWID.
- 15) Provide one NTZZ02PM to equip a LTC module to host an RCC2 that is equipped for Extended Distance Capability. Provide one NTZZ02PN, instead of the NTZZ02PM, to equip an LTC module to host an RCC2 with extended distance and ADSI/SCWID capabilities.
- 16) NTAX74AA is provisionable in DTCI for MCI ACD applications ONLY. It is not provisionable in LTC/LTCI/LGC/LGCI or any other DTCI application. For this reason, the NTZZ17SU and NTZZ17SV are provisionable ONLY in DTCI for MCI ACD applications.
- 17) Provide one NTZZ17GJ (US/CALA) to equip a module for TMS/ETMS applications (ETMS requires TOPS03 or higher CM load). Provide NTZZ17GM for Canadian applications of TMS/ETMS.

- 18) Provide the NTZZ04KD Digital Trunk Controller with XPM Plus for DWS applications.
- 19) Provide the NTZZ17TT ISDN Digital Trunk Controller with XPM Plus for DWS applications.
- 20) Provide the NTZZ03DK SMU Packfill to equip one module as an SMU with the Unified Processor.
- 21) Provide the NTZZ03BS SMS Packfill to equip one module as an SMS with the Unified Processor.
- 22) Provide the NTZZ03ED SMS-R+ Packfill to equip one module as an SMS-R with the Unified Processor.
- 23) The introduction of SMUI+ packfill NT6X02CX changes slot 14 from NT6X44CA (as always provided) to provisionable. For packfill NT6X02CX the NT6X44CA or the NTAX78AB can be provisioned into slot 14. For digital test access (DTA), the NTAX78AB must be provided. The following details this provisioning:
 - * For SMUI+ with NT6X69AC and NO DTA, provide NTZZ03RC and two (2) NT6X44CA.
 - * For SMUI+ with NT6X69AD (BCS-36 and above) and NO DTA, provide NTZZ03RL and two (2) NT6X44CA.
 - * For SMUI+ with NT6X69AC and DTA, provide NTZZ03RC and NTZZ03RC and two (2) NTAX78AB.
 - * For SMUI+ with NT6X69AD (BCS-36 and above) and DTA, provide NTZZ03RL and two (2) NTAX78AB.
- 24) Provide the NTZZ17QS LTCI+ Packfill to equip one module as an LTCI with the Unified Processor.
- 25) Provide the NTZZ17RS LGCI+ Packfill to equip one module as an LGCI with the Unified Processor.
- 26) Following is the rule on when to provide NT6X69AC or NT6X69AD. Provide two (2) NT6X69AD CPP Message Protocol CPs for all modules except for any office at BCS-35 or below, SMS module with the MP/SP processor, or any SMS-R module. These exceptions still require NT6X69AC. Message Protocol and Tone CPs required to support BCS-36 and beyond: NTZZ02PJ, NTZZ02QJ, NTZZ03BS, NTZZ03DK, NTZZ03RL, NTZZ17GJ, NTZZ17QS, NTZZ17RS, NTZZ04HD, NTZZ04KD, NTZZ17ST, and NTZZ17TT. Do not provide the following Building Blocks

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for BCS-36 and beyond as they contain the NT6X69AC Message Protocol and Tone CP: NTZZ02PA, NTZZ02QA, NTZZ03BE, NTZZ03DE, NTZZ03RC, NTZZ17GC, NTZZ17QM, and NTZZ17RM, NTZZ04HB, NTZZ04KA, NTZZ17SM, and NTZZ17TM. When the ADSI and SCWID features of BCS-36+ are to be supported, then CLASS Modem Resource CPs and Universal Tone Rcvr Ccts must be provided separately per RUL3 and RUL4. See NOTE 7.

- RUL2 1) For all U.S. applications, or for Canadian applications where Extended Frame Format feature is required, provide maximum ten (10) NT6X50AB, DS-1 EFF I/F for each DTC/LGC/LTC for P-side interface. The NT6X50AB is required in applications that interface a fiber span (SONET), therefore, the NT6X50AA should not be used to interface a fiber span.

For Canadian applications where EFF feature is not required, provide maximum ten (10) NT6X50AA DS-1 Interface for each DTC/LGC/LTC for P-side interface.

NOTE: If ANY NT6X50AB or NT6X50AA are required in slots 1 through 5 of either shelf of an LGC/LTC/DTC module, then at least two circuit packs must be provisioned in that shelf. Provide one additional NT6X50AB or NT6X50AA, per shelf, if necessary to meet this requirement.

Provide maximum ten (10) NT6X50AB DS-1 Signaling Interface per SMA per customer requirements.

For each SMS/SMS-R, provide maximum ten (10) NTZZ03FA SCM DS-1 Interface CP. Rating change is pending for the NTZZ03FA. Provide maximum ten (10) NT6X85AC DS-1 Interface Circuit Packs, with labels, when the NT6X85AC is available for this application per manufacturing phase-in plan.

For each SMU, provide maximum ten (10) NT6X85AC DS-1 Interface CPs. The NT6X85AC replaces the formerly provided NTZZ03FA for SMU applications immediately. Provide one (1) P0801996 Label for each NT6X85AC provided.

For each SMR, provide maximum six (6) NT6X50AA DS-1 Interface as per customer requirements for P-side interface.

Provide maximum ten (10) NTZZ04AA DS0A Signaling Interface per DTC per customer requirements.

- 2) Each NT6X50AB, NT6X50AA, or NTZZ03FA provides interfaces for up to two (2) T-1 spans. The following table is a listing of DS-1 ports per circuit pack location.

CP POS	5	4	3	2	1
SHF POS X-14	PORTS 2, 3	PORTS 6, 7	PORTS 10, 11	PORTS 14, 15	PORTS 18, 19
SHF POS X	PORTS 0, 1	PORTS 4, 5	PORTS 8, 9	PORTS 12, 13	PORTS 16, 17

For the lower module in the cabinet X=05 (i.e. shelf positions 05 and 19),

and for the upper module in the cabinet X=33 (i.e. shelf positions 33 and 47).

The DS-1 ports in the Trunk Member Table of the DMS switch are referred to as circuits. The DS-1 port number equals the circuit number.

- 3) For LGC/LTC/LGCI/LTCI, assign the DS-1 hardware in the module such that the DS-1 ports (circuits) start from port 0 and increase in sequential order (i.e. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19). This assignment is really critical only if there are 18 or less than 18 core equipped DS-1 ports/circuits. For new offices this rule must be strictly adhered to.
- 4) For LGC/LTC/LGCI/LTCI, assign first the DS30A LCM Interface in the module if provided. Then assign the DS-1 Interfaces in the module such that the DS-1 ports (circuits) start from 0 and follow this sequence 0, 1, 2 if not used by LCM, 3 if not used by LCM, 4,5,6 if not used by LCM, 7 if not used by LCM, 8,9,10 if not used by LCM, 11 if not used by LCM, 12, 13, 14 if not used by LCM, 15 if not used by LCM, 16, 17, 18 if not used by LCM and 19 if not used by LCM. The LGC/LTC/LGCI/LTCI DS-1 ports (circuits) that are used by digital trunking, links to RSC, links to RLCM, and links to OPM are to be picked from this block of ports (circuits). For new offices, this rule must be strictly adhered to.

This rule is critical in LGC/LTC/LGCI/LTCI that have fewer than 16 network ports and in addition one of the following applies:

18 or less than 18 DS-1 ports (circuits) are used for digital trunking.

18 or less than 18 DS-1 ports (circuits) are used for RSC.

18 or less than 18 DS-1 ports (circuits) are used for RSC and for digital trunking.

- 5) Provide one (1) NTZZ04AA for each DS0A (56 Kb/s) signaling link required. This building block can be provisioned in any slot that an NT6X50AB or NT6X50AA is allowed. The NTZZ04AA consumes two (2) DS1 ports and uses one (1) of the 24 channels of the first DS1 port for the DS0A channel. The remaining 47 channels cannot be used. Therefore, the NTZZ04AA should be evenly distributed across all DTC to minimize the port impact.
- 6) For TMS, ETMS, and OC ETMS applications, refer to ECM 468 for DS-1 provisioning.

- RUL3
- 1) Provide one (1) NTZZ02EA, CLASS Modem Resource (CMR) CP, for each LGC/LTC module that is to provide CLASS Calling Number Delivery (CND) to the lines that subtend the module or is supporting ADSI or SCWID. If an LGC/LTC is ONLY going to host RSCs, and all the RSCs hosted have CMR cards, then the LGC/LTC does not require CMR cards. If the LGC/LTC has a mix of RSCs/RLCMs/LCMs, and the LCMs/RLCMs are to have the CND, ADSI, or SCWID feature, then the LGC/LTC requires CMR cards. The circuit packs mount in slot 13 of each shelf.
 - 2) Provide one (1) NTZZ02EA, CLASS Modem Resource CP, for each SMS/SMU module that is to provide CLASS Calling Number Delivery (CND) to the lines that subtend the module or is supporting ADSI or SCWID. The circuit packs mount in slot 16 of each shelf.
 - 3) Do not provision CMR cards in the SMS-R module. If the CND, ADSI, or SCWID feature is required for the lines subtending an SMS-R module, the necessary CMR cards must be provisioned in the Remote Switching Center (RSC) which is hosting that SMS-R.

- RUL4
- 1) Provide one NTZZ02FC 30 GTR Circuits for each LGC/LTC/DTC/SMU/SMS/SMA and LGCI/LTCI/DTCI/SMUI to perform Digitone and MF receiver functions. UTR/GTRs may only be

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provided for SMS modules at BCS-35 and above. The NTZZ02FC contains the LSSGR/CCITT compliant Global Tone Receiver that can be used in all markets. It currently replaces the NTZZ02FA, and will eventually replace the NTZZ02FB UTR building blocks.

- 2) One NTZZ02FC provides up to 30 circuits. Each NTZZ02FC contains two circuit packs, one for each shelf of the module. The first NTZZ02FC in a module is mounted in card slot 15, EXCEPT for SMS modules where it is mounted in card slot 17. The GTR, NT6X92EA, can exist anywhere a UTR exists, however, they cannot be mixed in the same module.
- 3) When UTR/GTRs are provided in an SMS module, the module must be equipped with NT6X69AC/AD in card slot 18, rather than older Messaging packs, in order to avoid exceeding power consumption limits.
- 4) The following information is retained for historical purposes. The NT6X92BC is a power-reduced version of the NT6X92BB CP included in NTZZ02FA. The NT6X92BC CPs were cut into new production with no upgrade of existing field stock. The NT6X92BB and NT6X92BC CPs are physically and functionally interchangeable. Check availability before ordering the NTZZ02FC.
- 5) If more circuits are required for LGC/LTC/DTC modules, an additional NTZZ02FC can be ordered to mount in card slot 16. The second card in slot 16 CANNOT be added for other module types. If additional tone receivers are required, the existing UTRs must be replaced by GTRs in addition to the required GTRs.
- 6) Do not order any UTR/GTRs for SMR, SMS-R, or TMS modules
- 7) The Analog Display Services Interface (ADSI) and Spontaneous Call Waiting ID (SCWID) features of BCS-36+ require that the supporting modules be equipped with UTR/GTR CPs. This does not apply to the SMS-R module. If the ADSI or SCWID feature is required for the lines subtending an SMS-R module, the necessary UTR/GTR cards must be provisioned in the Remote Switching Center (RSC) which is hosting that SMS-R.
- 8) UTR/GTR cards located in a particular LGC/LTC module will service all lines and trunks connected to that module. This includes all lines in LCM's, RLCM's and OPM's.

- RUL5 1) Provide one (1) NTZZ02GC, 16 DS30 Network Interface, for each LGC/LTC/DTC/SMR/SMU/LGCI/LTCI/DTCI/TMS module requiring DS-30 interface to the Network. Each NTZZ02GC contains circuit packs for shelf position X and X+14 (where X = 05, or 33). The NTZZ02GC will eventually replace the NTZZ02GA. The NTZZ02GC offers NT6X40AD I/F CPs that have enhanced diagnostic functionality when installed in both shelves of a module in offices with XPM05 or later load. If the office has XPM05 or later but mixes the NT6X40AD in a module with NT6X40AC, or if the office has XPM04 or earlier load, then the enhanced diagnostic capability cannot be utilized and the NT6X40AD acts like the NT6X40AC.
- 2) Provide one (1) NTZZ02GA, 16 DS30 Network Interface, for each SMS module requiring DS-30 interface to the Network. Each NTZZ02GA contains circuit packs for shelf position X and X+14 (where X = 05, or 33).
- 3) Provide one NTZZ02HN DS512 Network Interface, for each LGC/LTC/DTC/SMS/SMR/SMU/LGCI/LTCI/DTCI/TMS module requiring DS-512 (except SMS-R) interface to the Enhanced Network (E-NET). Each NTZZ02HN contains circuit packs for shelf position X and X+14 (where X = 05 or 33). The NTZZ02HN will eventually replace the NTZZ02HM. The NTZZ02HN offers NT6X40FB I/F CPs that have enhanced diagnostic functionality when installed in both shelves of a module in offices with XPM05 or later load. If the office has XPM05 or later but mixes the NT6X40FB in a module with NT6X40FA, or if the office has XPM04 or earlier load, then the enhanced diagnostic capability cannot be utilized and the NT6X40FB acts like the NT6X40FA. When NT6X40FA and NT6X40FB are mixed in a module, they must be datafilled as NT6X40FA.
- RUL6 1) Provide one (1) NT0X50AA, Filler Face Plate 0.875, for each card position 1-7, 9, 13, 15,16, 19, 23 that is unequipped.
- RUL7 1) For each LGC/LTC/LGCI/LTCI that will interface LCMs, provide one (1) NTZZ02KA 10 DS30A LCM Interfaces in slot 6 for from 1 to 10 DS30A interface ports. For from 11 to 20 DS30A interface ports, provide a second NTZZ02KA in slot 7.

- 2) The following is a listing of DS30A ports per DS30A LCM Interface circuit pack position.

	CP POS 6	CP POS 7
PORT	2	0
PORT	3	1
PORT	6	4
PORT	7	5
PORT	10	8
PORT	11	9
PORT	14	12
PORT	15	13
PORT	18	16
PORT	19	17

- 3) Port/circuits must start and follow the sequence 19, 17, 18, 16, 15, 13, 14, 12, 11, 9, 10, 8, 7, 5, 6, 4, 3, 1, 2 and 0. LGC/LTC DS30A ports that are assigned to LCM are to be picked from this block of ports (circuits). Then assign the DS-1 Interfaces in the module.

This rule is critical in LGC/LTC that have fewer than 16 network ports and in addition one of the following applies: 18 or less than 18 DS-1 ports (circuits) are used for digital trunking. 18 or less than 18 DS-1 ports (circuits) are used for RSC. 18 or less than 18 DS-1 ports (circuits) are used for RSC and for digital trunking.

- RUL8 1) Provide one (1) NTZZ04CA, Continuity Tone Detector, for each DTC module requiring continuity tone detection for SS7. For Canadian offices, the Continuity Tone Detector is only required where analog facilities are used at some point in the end-to-end connection of the trunk. Each NTZZ04CA contains circuit packs for shelf position X and X+14 (where X = 05, or 33).

- RUL9 Only one (1) of the following kits can be provided per module:
- 1) Provide one (1) NTRX3660, Copper Interface Kit, per module when copper cables are required as the network interface.
 - 2) Reserved for future use.
 - 3 Provide (1) NTRX3652, Cover Plate Kit, per module when fiber optic cables are required as the network interface.
 - 4) Provide (1) NTRX3652, Cover Plate Kit, when NT6X02AB is provided to fill the top unequipped module position in accordance with RUL1.
- RUL10 1) Provide one NTZZ99AN to upgrade one existing XPM module to XPM+ capability. The module must first be brought to the following minimum packfill level before upgrade:
- DTC Module : NT6X02IC
LGC Module : NT6X02LC
LTC Module : NT6X02MC
- 2) One NTZZ99AN provides two NTMX77AA Unified Processor CPs and labels for slot 12, and two NTMX71AA Terminators and P0749586 Insertion Guides for slot 19 Rear. The existing NT6X45, NT6X46, and NT6X47 packs must be removed and the vacant slots provided with NT0X50AA filler face plates.
 - 3) An SMS or SMS-R module requires application of one NT6X02WG Product Change Kit in addition to one NTZZ99AN kit. See RUL19.
- RUL11 1) Provide one (1) External Power Filter Kit, NTRX36KA, if external (vertical) power arrangement is used. A maximum of three (3) Model B Cabinets, including CCPE (CDTE, CLTE, CSME), with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).
- 2) Provide one (1) Horizontal Power Kit, NTRX36KB, if horizontal power arrangement (CPDC in same lineup) is used. A horizontal power arrangement is used in Cabinetization Model A lineups. The NTRX36KB Horizontal Power Kit may be used when CCPE (CDTE, CLTE, CSME) Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).
- RUL12 1) Provide maximum nine (9) D-Channel Handler CP, either the NTZZ17BA D-Channel Handler (DCH) CP or NTZZ17BB Enhanced

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D-Channel Handler (EDCH) CP, per CPCI module in accordance with customer requirements and the following conditions:

- A. EDCH hardware requires BCS-35, except in TMS, where EDCH requires BCS-36. Order NTZZ17BB for all new jobs at these BCS levels and above.
 - B. The EDCH software load requires the Unified Processor (XPM+) and the Enhanced ISDN Signaling Preprocessor (EISP) in the module. TMS does not use the DCH or the EDCH load; therefore, a TMS module with BCS-36 can use EDCH without XPM+ or EISP.
 - C. The EDCH CP may be combined with DCH CPs in a module, but in that case the DCH software load is required (rather than EDCH load) and the EDCH CP operates as if it is a DCH; i.e., the enhanced capacity of the EDCH CP is not utilized.
 - D. A DCH may be spared with an EDCH circuit pack (BCS-35 or >, BCS-36 or > for TMS).
- 2) Each DCH/EDCH supports up to 124 BRI D-Channels. The spare DCH or EDCH should not be counted when determining the number of DCH/EDCHs required to support D-channel traffic.
 - 3) Provide one (1) QFF1A fuse and one (1) P097P235 Designation Disc for each DCH or EDCH provided. Mount these items in the Modular Supervisory Panel (MSP), shelf position 61, in the slot and fuse position associated with the DCH/EDCH location as shown in the following table. Provide one (1) P0800315 Fuse Designation Label Sheet per cabinet and use it to identify each fuse provided.
 - 4) Each DCH/EDCH, including the spare, requires one peripheral port on the CPCI module. Assign DCH/EDCH cards to shelf and slot positions in each module using the sequence shown in the following table. The spare DCH/EDCH for each module should be assigned last.

	DCH/EDCH Assignment Sequence	DCH/EDCH Shelf Pos	DCH/EDCH CP Pos	DCH/EDCH Logical Port Number	MSP Slot Pos	MSP Fuse Pos
UPPER	1	47	1	19	11	F01
	2	33	1	17	10	F01
	3	47	2	15	11	F02
	4	33	2	13	10	F02

MODULE	5	47	3	11	11	F03
	6	33	3	09	10	F03
	7	47	4	07	11	F04
	8	33	4	05	10	F04
	9	47	5	03	11	F05
	10	33	5	01	10	F05
LOWER MODULE	1	19	1	19	9	F01
	2	5	1	17	8	F01
	3	19	2	15	9	F02
	4	5	2	13	8	F02
	5	19	3	11	9	F03
	6	5	3	09	8	F03
	7	19	4	07	9	F04
	8	5	4	05	8	F04
	9	19	5	03	9	F05
	10	5	5	01	8	F05

- 5) DCH/EDCH CP are not required for DTCI (PRI) applications, nor where the CPCI supports only non-ISDN LCMs.
- 6) For TOPS Message Switch applications, provide four (4) DCH/EDCH CP in card slots 1 & 2 of shelf X & shelf X+14. The EDCH CP may be used for TMS applications at BCS-36 and higher. For ETMS (XPM+), EDCH is required. ETMS requires TOPS03 and higher. EDCH NOT REQUIRED IN OC ETMS.
- 7) For SMA applications, ISDN support requires minimum BCS-36 or higher. The Enhanced D Channel Handler will be used for SMA ISDN support; the DCH is NOT supported. A maximum of three active and one hot spare EDCH CPs per SMA module are allowed.

RUL13 1) An LGC or LTC which is hosting an RCC2 equipped for Extended Distance Capability must have the HDLC Messaging packs instead of the standard NT6X69-- packs. Use of the HDLC Messaging requires that the module is equipped with the Unified Processor. Therefore, an existing LGC+ or LTC+ may be upgraded to support an RCC2 with EDC by replacing the NT6X69-- Messaging packs with NTMX76AAs. The NTMX76AA packs mount in slot 18 of both shelves. Provide one P0744109 label per NTMX76AA. For EDC with ADSI/SCWID, provide (2) NTMX76ABs (and P0857783 labels) instead of the NTMX76AAs.

RUL14 1) Provide one Base Jumper Kit for each non-ISDN module ordered. The Base Jumper Kit provides two jumpers for con-

necting pins on the back on the non-ISDN module to perform in non-ISDN capacity

- RUL15 1) Provide one SMS-R Cable Kit for each SMS-R module ordered on the CCPE frame. This kit provides the hardware and cables necessary to provide DS30A ports to the bulkhead.
- RUL16 1) For DMS-250 applications, provide the NT6X62AA for reorigination tone feature only. When reorigination tone and Blue Box Fraud features are required provide the NT6X62AB card.
- RUL17 1) No longer applicable.
- RUL18 1) Provide one NTZZ02SB Ring/Pad Ckt per SMS module Building Block listed in RUL1 equipped with the NT6X02DS/DT/DU packfill.
- 2) Provide one NTZZ02SB Ring/Pad Ckt per SMS-R module Building Block listed in RUL1 equipped with the NT6X02PH/PJ/PK packfill.
- 3) Provide one NTZZ02SB Ring/Pad Ckt per SMA module equipped with NT6X02TF or later packfill.
- 4) Provide one NTZZ02SB Ring/Pad Ckt for each SMU module equipped with the NT6X02EP or later packfill and for each SMUI module equipped with the NT6X02ES or NT6X02CX packfill. Each NTZZ02SB includes two NT6X80BB Ring/Pad CPs with labels. (The NTZZ03RB/RC/RK/RL incl. the NT6X80BBs, these packs do not have to be provisioned if providing one of the NTZZ03RB/RC/RK/RL building blocks).
- RUL19 1) The NT6X02WC Prod. Chg. Kit was provided as part of the upgrade of an existing SMS or SMS-R module to XPM+. This kit provided two NT6X86AB A-bit Message CPs with labels, to replace the existing NT6X86AA. The NT6X86AB is required with the Unified Processor. The processors are upgraded by applying the NTZZ99AN Product Change Kit. See RUL10. The NT6X02WC Kit should no longer be used. Provide the NT6X02WG Kit instead.
- 2) Application of the NT6X02WC Kit to an SMS module equipped with the NT6X02DR packfill converted it to NT6X02DS. Application of the NT6X02WC Kit to an SMS-R module equipped with the NT6X02PG packfill converted it to NT6X02PH.
- 3) Where the NT6X02WC Kit has been deployed for XPM+ SMS or SMS-R order two NT6X80BB CPs with labels and replace existing NT6X80AA or NT6X80BA. The NT6X02WC Kit should no

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longer be used. For all future XPM+ SMS or SMS-R upgrades use the NT6X02WG Kit. See EMS for NT6X02WG EMA2-99-XPM-20.

- RUL20 1) Support for the ADSI or SCWID feature requires that the module be equipped with NT6X69AD Message Protocol and Tone CPs. Provide two NT6X69AD packs and two P0800014 labels and mount them in slot 18 of each shelf to provide ADSI/SCWID support. This rule does NOT apply to the SMS-R module. See NOTE 7 for additional requirements regarding ADSI/SCWID.
- RUL21 1) Provide one NT6X02WB Product Change Kit to upgrade any existing peripheral that requires the NT6X69AD. The NT6X02WB is for field application only. Other changes may also be required to support ADSI and SCWID; see NOTE 7.
- 2) Application of the NT6X02WB kit to an SMUI module equipped with the NT6X02EL packfill converts it to NT6X02ES.
- 3) Application of the NT6X02WB kit to an SMA module equipped with the NT6X02TE packfill converts it to NT6X02TF.
- RUL22 1) Provide one (1) NT6X02WE Product Change Kit to upgrade one existing SMU module with NT6X02EM packfill to NT6X02EP. For field application only. In the NT6X02EM module, slot 19 is always provided with NT6X80BAs. Product change kit NT6X02WE makes slot 19 provisionable with only the NT6X80BBs.
- RUL23 1) Provide one NTZZ02UA per module to support the Peripheral Loader option. Modules to be equipped with the NTZZ02UA must also be equipped with the NTMX77AA Unified Processor. The NTZZ02UA cannot be used in non-XPM Plus applications. The NTZZ02UA contains two NT7X05AA CPs and labels.
- 2) Mount the NTZZ02UA in slot 15 for SMS modules. Use slot 17 for all other modules. Do not mount the NTZZ02UA in SMA peripheral modules.
- RUL24 1) The SMA product is MD'd.
- RUL25 1) The NTB01BA is currently provided by the SMA module level building blocks. There is no rule for providing NTZZ03AJ at this time.
- RUL26 1) Provide one NT2X70AY to upgrade the NT2X70AE in a module to NT2X70AF. This kit is for field applications where the NT2X70AE was always provided. NT2X70AE is not valid in DTC+ applications.

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- RUL27 1) Provide one NT6X02CY to upgrade the NT6X02ES to NT6X02CX with DTA (kit includes application of two (2) NTAX78AB for DTA). For field applications only. Refer to the NT6X02CY engineering manual section for further details.
- RUL28 1) Provide one NT6X02YA (per module) to upgrade existing SMR (NT6X02CQ) to SMU (NT6X02EU). Refer to the NT6X02YA engineering manual section for further details (section includes information for upgrading from previous version of SMR packfill).
- RUL29 1) Provide one NT6X02YB (per module) to upgrade existing SMR (NT6X02CT) to SMS (NT6X02EU). Refer to the NT6X02YB engineering manual section for further details (section includes information for upgrading from previous version of SMR packfill).

RINGING GENERATOR CABINET SYS (UK)

PEC CODE: NTZZ08GT

| CPC CODE: B0245694

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the CLCE.

REFERENCE DOCUMENTATION: SLZZ08GT 00 01

MARKETS: Applicable markets:

Europe

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ08GT EMB2-09-IRG-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 619 39	NTZZ08GT introduced per BB Rat and GMF recommendations.

The RINGING GENERATOR CABINET SYS (UK) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X30GA		2	65	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ08GT is ordered, these items are provided.

RINGING GENERATOR CABINET SYS (CHINA/AUSTRALIA)

PEC CODE: NTZZ08HT

| CPC CODE: B0245693

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the CLCE.

REFERENCE DOCUMENTATION: SLZZ08HT 00 01

MARKETS: Applicable markets:

Asia/Pacific

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ08HT EMB2-09-IRG-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 619 39	NTZZ08HT introduced per BB Rat and GMF recommendations.

The RINGING GENERATOR CABINET SYS (CHINA/AUSTRALIA) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringin Generator CP	NT6X30EA		2	65	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ08HT is ordered, these items are provided.

RINGING GENERATOR CABINET SYS (JAPAN)

PEC CODE: NTZZ08JT

| CPC CODE: B0249120

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the CLCE.

REFERENCE DOCUMENTATION: SLZZ08JT 00 01

MARKETS: Applicable markets:

Asia/Pacific

| ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

| MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ08JT EMB2-09-IRG-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 06 05	ECM 619 46	NTZZ08JT Ringing Generator (NT6X30JA) introduced to the CLCE Cabinet B per EC 024-98019.

The RINGING GENERATOR CABINET SYS (JAPAN) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X30JA		2	65	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ08JT is ordered, these items are provided.

CABINETIZED LINE CONCENTRATING EQUIPMENT

PEC CODE: NTZZ08EC

CPC CODE: B0245448

RATING: Standard

REPLACES: NTZZ47AB, NTZZ08EB

REPLACED BY: Not applicable

ABBREVIATION NAME: CLCE

ENGINEERING DESCRIPTION: The NTZZ08EC is a single bay LCE cabinet in which two dual shelf LCMS are provisionable. A total of 1280 line cards can be supported with two LCMS equipped. To accommodate different ringing standards, the ringing generators, the doors, brown or grey, and power arrangement, external or horizontal, are also provisionable.

| REFERENCE DOCUMENTATION: MSRX30CA 01 09

MARKETS: Applicable markets:

US
Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ08EC EMB2-09-LCE-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 619 39	Initial release. This new Functional Block, NTZZ08EC, replaces NTZZ47AB and NTZZ08EB per BB Rationalization and GMF recommendations.
96 08 23	ECM 619 41	Minor editing correction to Rules 5 and 6 per SR RR67562.
96 11 20	ECM 619 42	Add NTRX30JA Kit to match MS document per SR RR69938.
97 04 18	ECM 619 44	Introduce NT6X05DA ISDN Line Drawer Remotes to the CLCE per EC 024-97291 and EC 028-15577 for use with the RSC-S product.
97 05 13	ECM 619 45	Update EMS per EPSA recommendations. Show PECs NT6X05AA and NT6X04MD in equipment list associated with Rule 8, parts 2 and 3.
97 06 05	ECM 619 46	Introduce NTZZ08JT Ringing Generator (NT6X30JA) to the CLCE Cabinet B per EC 024-98019. Rearrange Rule 2, parts 2 and 3, and add part 4.

The NTRX30CA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cab. Line Conc. Equip. Frame	NTRX30CA		1			AP
C28 Cabinet Mechanicals	NTRX25AA					AP-01
CLCE Bulkhead Personality Plate	P0740489		4	05,19 33,47		AP-01
MSP Kit	NTRX3084	MSP	1	61		AP
Talk Battery Filter	NTRX44AA		2	61	1,3	AP-02
Alarm Module	NTRX41AA		1	61	5	AP-02
Thermal Breaker Module	NTRX43AA		1	61	7	AP-02
Breaker Module (10A)	NTRX42AA		2	61	13,14	AP-02
Breaker Module 10/20A	NTRX42EA		2	61	11,12	AP-02
Fan Power Control and Filter	NTRX54BA		1	61	19	RUL5
Designation Label	P0741680		1	61	19	RUL5
Fan Power Control and Filter	NTRX54AA		1	61	19	RUL5
Designation Label	P0741735		1	61	19	RUL5
Terminal Block Assy 6X3	P0737547		2	61	9R,17R	AP-02
Terminal Block Assy 4X4	P0737326		1	61	4R	AP-02
Double Blank Panel 2.40"	P0734475		2	61	8-9 R16	AP-02
Single Blank Panel 1.20"	P0734476		6	61	10 20R,18R 10R,8R 2R	AP-02
Quad Blank Panel 4.80"	P0734474		1	61	15-18	AP-02
Ringing Gen Shelf Assy	NTRX25AG		1	65		AP-01
Ringing Generator (North America)	NTZZ08FT		1	65	1,2	RUL2
Ringing Generator (UK)	NTZZ08GT		1	65	1,2	RUL2
Ringing Generator (China/Australia)	NTZZ08HT		1	65	1,2	RUL2
Ringing Generator (Japan)	NTZZ08JT		1	65	1,2	RUL2
Line Con. Array Shelf Assy	NT6X0442	LCA1	1	33		AP-01
LCM (North America)	NTZZ08BC	LCM1		33		RUL3
LCM (International)	NTZZ08MB	LCM1		33		RUL3
LCM Common CP	NT6X04MD			33,47		RUL8
Line Drawers	NT6X05AA			33,47		RUL8
Line Drawer Filler	NT6X05AX			33,47		RUL4
ISDN Line Drawer Remotes	NT6X05DA			33,47		RUL8
LCM Filler Kit	NT6X04AX		1			RUL4

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Line Con. Array Shelf Assy	NT6X0442	LCA0	1	05		AP-01
LCM (North America)	NTZZ08BC	LCM0		05		RUL3
LCM (International)	NTZZ08MB	LCM0		05		RUL3
LCM Common CP	NT6X04MD			05,19		RUL8
Line Drawers	NT6X05AA			05,19		RUL8
Line Drawer Filler	NT6X05AX			05,19		RUL4
ISDN Line Drawer Remotes	NT6X05DA			05,19		RUL8
Cooling Unit	NTRX93AA	CU	1	00		AP
C28 English Label Kit	NTRX3541		1			RUL6
C28 German Label Kit	NTRX3542		1			RUL6
QFFI Fuse Assembly	NT6X04FA		4	05,19 33,47		AP
External Power Filter Kit	NTRX30PH		1			RUL1
Horizontal Power Filter Kit	NTRX30PJ		1			RUL1
MTA Filter Kit	NTRX30JA					RUL7
C28 Cabinet Mechanicals	NTRX25AA					NOTE2
Cabinet Power and Grounding	NTZX16CA					NOTE3
CLCE Door and eqp labels	MS0X60AA					NOTE4

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ08EC CLCE comprises a NTRX30CA cabinet in which two (2) Line Concentrating Modules (LCM) are provisionable in shelf positions 05 and 33. The cabinet contains 4 Line Con-

centration Array (LCA) shelves. Two LCA shelves make up a Line Concentration Array (LCA). Each LCA provides accommodation for one Line Concentrating Module (LCM). The lower LCA is LCA 0 and the upper LCA is LCA 1. The NTZZ08EC CLCE contains up to two (2) LCMs.

- 2) The NTZZ08EC has system level provisionable items covering the following:

- * Seismic Zone provisioning
- * Grounding options provisioning
- * Cable routing options provisioning
- * Cabinet Fail Lamp provisioning
- * Cabinet door provisioning

For details of the above refer to Engineering Manual Section NTRX25AA, C28 Cabinet Mechanical Assembly.

- 3) For power and grounding information refer to Engineering Manual Section for NTZX16CA Cabinetized Power and Grounding.
- 4) Refer to MS0X60AA for equipment labeling.

RULES:

- AP 1) When PEC NTZZ08EC is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NTRX30CA Cabinet, and is shown here for completeness.
- AP-02 1) This equipment is always Provided (AP) with NTRX3084 and is shown here to specify shelf and/or slot positions.
- RUL1 1) Provide one (1) External Power Filter Kit, NTRX30PH, if external (vertical) power arrangement is used. A maximum of three (3) Model B Cabinets, including CLCE, with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).
- 2) Provide one (1) Horizontal Power Kit, NTRX30PJ, if horizontal power arrangement (CPDC in same lineup) is used. A hor-

horizontal power arrangement is used in Cabinetization Model A lineups. The NTRX30PJ Horizontal Power Kit may be used when CLCE Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).

- RUL2 1) Provide one (1) NTZZ08FT Ringing Generator CPs per CLCE when analog ringing complying with North American standards is required.
- 2) Provide one (1) NTZZ08GT Ringing Generator CPs per CLCE when analog ringing is required for applications in the UK.
- 3) Provide one (1) NTZZ08HT Ringing Generator CPs per CLCE when analog ringing is required for China or Australia applications.
- 4) Provide one (1) NTZZ08JT Ringing Generator CPs per CLCE when analog ringing is required for applications in Japan.
- RUL3 1) Provide one (1) LCM NTZZ08MB if the CLCE is required to support between 1 and 640 line cards.
- 2) Provide two (2) LCM NTZZ08MB if the CLCE is required to support between 640 and 1280 line cards.
- 3) Provide one (1) LCM NTZZ08BC if the CLCE is required to support between 1 and 640 line cards.
- 4) Provide two (2) LCM NTZZ08BC if the CLCE is required to support between 640 and 1280 line cards.
- RUL4 1) Provide one (1) LCM Filler Kit NT6X04AX if LCM is not provisioned at shelf position 33.
- 2) Provide one (1) NT6X05AX, Line Drawer Filler, in any position not occupied by a line drawer.
- RUL5 1) Provide one (1) NTRX54BA Fan Power Control and Filter if -48V is required.
- 2) Provide one (1) NTRX54AA Fan Power Control and Filter if -60V is required.
- RUL6 1) Provide one (1) NTRX3541 English Label Kit where English language is required.
- 2) Provide one (1) NTRX3542 German Label Kit where German language is required.

- RUL7 1) Provision one (1) MTA Filter Kit NTRX30JA per cabinet except when CLCE is to be connected to a CMTA cabinet.
- RUL8 1) For North America Remote ISDN applications, provide one (1) NT6X05DA ISDN Line Drawer Remotes per LCM shelf, with a maximum of two (2) per LCM Module. Each NT6X05DA accommodates up to 28 ISDN line cards in two logical drawers called Line Sub Groups (LSG), which can contain 14 cards each. It is recommended that the ISDN Line Drawer be provisioned in the right hand drawer position of each shelf in physical position 4 and 9 (logical drawers 8 and 18) in order to permit an optimal heat dispersion in the LCM. However, ISDN Line Drawers can be provisioned in any drawer position on the LCM shelf except physical position 0 and 5 (logical position 0 and 10). This is because BIC Relay Test diagnostics require those positions for systems use.
- 2) If the maximum of 56 ISDN Lines per LCM is required, and a new or previously unequipped LCM is being filled, provision two (2) NT6X04MD CLCE LCM CPs, up to eight (8) NT6X05AA Line Drawers as required for POTS Lines, and two (2) NT6X05DA ILD-R Line Drawers per LCM in accordance with RULE 8, part 1, above. If only 28 ISDN Lines are required per LCM, provision one (1) NT6X05DA ILD-R Line Drawer and up to nine (9) NT6X05AA Line Drawers as required for POTS Lines in accordance with RULE 8, part 1, above.
- 3) If adding a NT6X05DA ISDN Line Drawer to an existing LCM per NTZZ08BC, one (1) NT6X05AA POTS Line Drawer will have to be removed (unassigned) for each NT6X05DA being added (assigned) to the LCM. Maximum two (2) NT6X05DA ILD-R per NTZZ08BC LCM.
- 4) Provide a maximum of seven (7) NT6X05DA ISDN Line Drawer Remotes per Remote site with a single (1) RSC-S NTMX89 Cabinet.
- 5) Provide a maximum of fourteen (14) NT6X05DA ISDN Line Drawer Remotes per Remote site with dual (2) RSC-S NTMX89 Cabinets.
- 6) For North America ISDN Line Drawer Remotes (NT6X05DA) applications using the NTRX30CA CLCE Cabinet, you must have the NT6X51AC LCM Proc CP (NT6X04MD) as a minimum. Upgrade per NT6X04ZY as required.

CABINETIZED LINE MODULE ISDN

PEC CODE: NTZZ47BC

CPC CODE: B0245447

RATING: Standard.

REPLACES: NTZZ47BB

REPLACED BY: Not applicable

ABBREVIATION NAME: CLMI

ENGINEERING DESCRIPTION: The Cabinetized Line Module ISDN (CLMI) houses a maximum of two (2) ISDN 2B1Q Line module. Each module houses a maximum of eight (8) Line Drawers. Each Line drawer may be provision with a mix of POTS and ISDN Line Cards, with the exception of the Type-B Line Card, to a maximum of 60 cards.

The NTZZ47BC may be either brown or grey in color. It may be used with either the External or the Horizontal power arrangement. Ringing generators are provisionable.

| REFERENCE DOCUMENTATION: MSRX30DA 00 07
| SLRX30DA 00 05
| ISRX30DA 00 06

MARKETS: Applicable markets:

US
Canada
CALA
Europe
Asia/Pacific

ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ47BC EMB2-09-LCE-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 685 10	New Functional Block, replaces NTZZ47BB. Created per BB Rationalization and GMF recommendations.
96 04 12	ECM 685 11	Update NTZZ47BC to remove reference to frame fail lights per EC 024-95542.
97 11 14	ECM 685 15	Clarification to Rule 2 per EPSA. Update NTZZ47BC to include new pack-fill NTB31BD (NTZZ17HC ISDN 2B1Q LCM) for International applications (GL03-China) per EC 024-98361.

The Cabinetized Line Module ISDN is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cabinetized LCE ISDN Model B	NTRX30DA	CLMI	1			AP
Cabinet Assembly	NTRX25AA		1			AP01
ISDN LCA Shelf Assy	NTBX3118		4	5,19, 33,47		AP01
External Power Filter Kit	NTRX30PG		1			RUL2
Internal Horizontal Pwr Kit	NTRX30PC		1	BASE		RUL2
Ringling Generator Shelf Assy	NTRX25AG		1	65		AP-01
Ringling Gen (North America)	NTZZ08FT		2	65	1,2	RUL3
Ringling Gen (China/Aus)	NTZZ08HT		2	65	1,2	RUL3
Ringling Gen (UK)	NTZZ08GT		2	65	1,2	RUL3
Ringling Generator Filler Faceplate	NTRX25AK		2	65	1,2	RUL3
MSP Kit	NTRX3082	MSP	1	61		AP
Modular Supervisory Panel	NTRX40AA		1	61		AP-02
Talk Battery Filter Module	NTRX44AA		2	61	1-2, 3-4	AP-02
Terminal Block Assy 6X3	P0737547		2	61	18R,8R	AP-02
Terminal Block Assy 4X4	P0737326		2	61	4R,10R	AP-02
Alarm Module	NTRX41AA		1	61	5-6	AP-02
MSP Fuse Module	NTRX43AA		1	61	7	AP-02
Circuit Breaker Module 20A	NTRX42EA		6	61	11-16	AP-02
Single Blank Panel 1.20"	P0734476		5	61	8 2R,9R, 17R,20R	AP-02
Double Blank Panel 2.40"	P0734475		2	61	9-10 17-18	AP-02
Fan Pwr Cntl Module -60Vdc	NTRX54AA		1	61	19	RUL8
Design Label (NTRX54AA)	P0741735		1	61	19	RUL8
Fan Pwr Cntl Module -48Vdc	NTRX54BA		1	61	19	RUL8
Design Label (NTRX54BA)	P0741680		1	61	19	RUL8
MSP Cable Assembly	NTRX4052		1			AP-01
Bulkhead-RH	NTRX2551		1			AP-01
CLMI BH Personality Plate	P0740490		4			AP-01
ISDN 2B1Q Line Conc. Module	NTZZ17HB			05,33		RUL4
ISDN 2B1Q Line Conc. Module	NTZZ17HC			05,33		RUL4
Line Cards	As Req'd					RUL4
LCMI Filler Kit	NTBX31AB			05,33		RUL5

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Line Drawer Filler Kit	NT6X05AX			33,47 05,19	1,5 9,13	RUL5
MTA Filter Kit	NTRX30JA					RUL6
Cooling Unit Assy 16" Deep	NTRX93AA	CU	1	00		AP
C28 English Lang. Label Kit	NTRX3541		1			RUL7
C28 German Lang. Label Kit	NTRX3542		1			RUL7
C28 Cabinet Mechanicals	NTRX25AA					NOTE1
Cabinet Power and Grounding	NTZX16CA					NOTE2
CLCE Door and eqp labels	MS0X60AA					NOTE3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

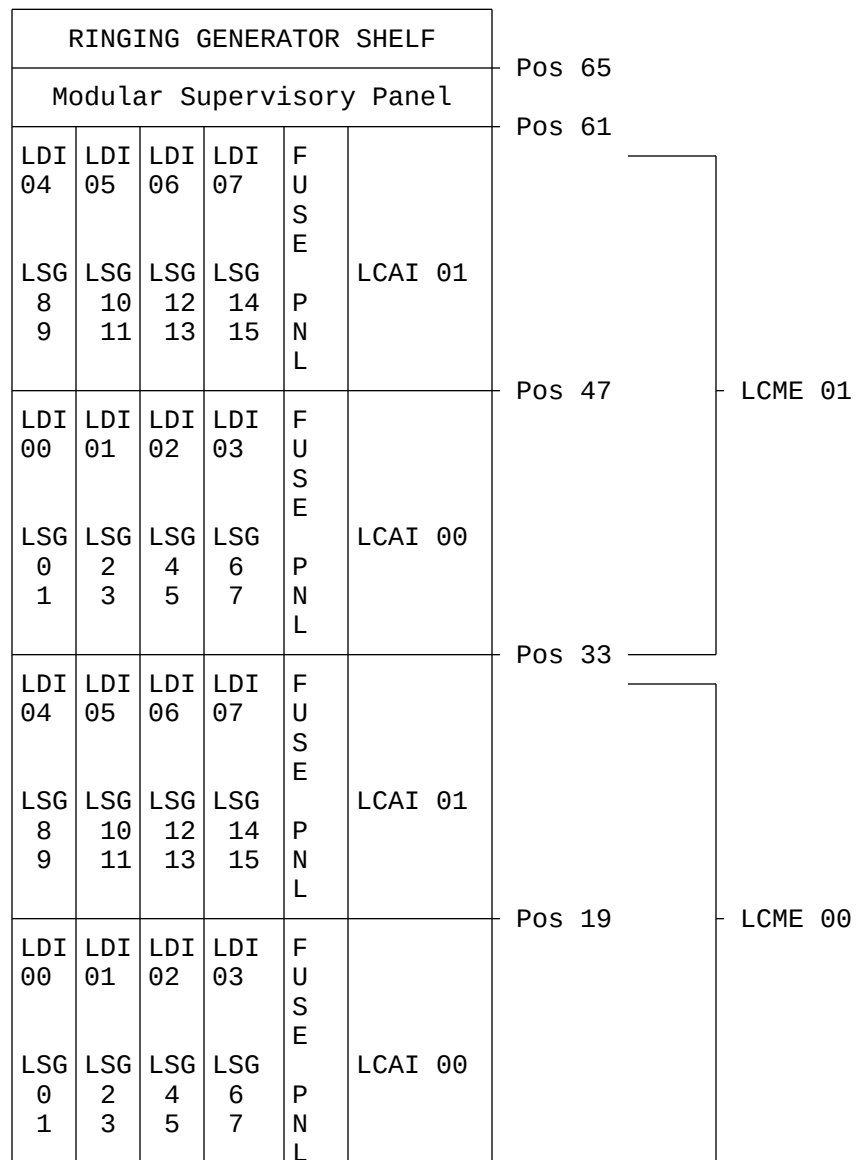
MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

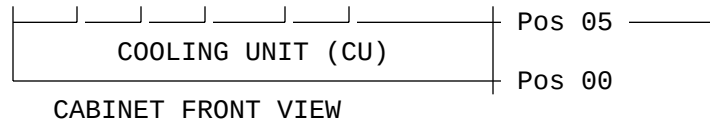
NOTES:

- 1) The NTZZ47BC CLMI has system level provisionable items covering the following:
 - * Seismic Zone provisioning
 - * Grounding options provisioning
 - * Cable routing options provisioning

For details of the above refer to Engineering Manual Section NTRX25AA, C28 Cabinet Mechanical Assembly.

- 2) For power and grounding information refer to Engineering Manual Section for NTZX16CA Cabinetized Power and Grounding.
- 3) Refer to MS0X60AA for equipment labeling.





3) Line Drawer physical layout for reference

SLOT POSTIONS	01	05	09	13	17	19	20	21	22	25
	N T B X 3 2	N T B X 3 2	N T B X 3 2	N T B X 3 2	N T B X 3 1 1 2	N T B X 3 5	N T B X 3 5	N T B X 3 4	N T B X 5 3	N T B X 7 2
	LD 0	LD 1	LD 2	LD 3	F U S E P N L	D C C 1	D C C 0	P R O C	C O N V E R T E R	R I N G R O U T E R
	— LINE DRAWERS —				— LCAI —					

RULES:

- AP 1) When PEC NTZZ47BC is ordered, these items are provided.
- AP01 1) This equipment is always provided (AP) with NTRX30DA and is shown here to specify shelf and/or slot positions.
- AP02 1) This equipment is always provided (AP) with NTRX3082 and is shown here to specify shelf and/or slot positions.
- RUL1 1) Provide one (1) Door Kit (Center Latch) grey, NTRX2568, if grey cabinets are required.
- 2) Provide one (1) Door Kit (Center Latch) brown, NTRX2569, if brown cabinets are required
- RUL2 1) Provide one (1) External Power Filter Kit, NTRX30PG, when an external (vertical) power arrangement is used. Vertical powering is the standard arrangement for Model B Cabinet

initial offices. When adding Model B cabinets to an existing lineup of Model A cabinets that are vertically powered, you must also vertically power the the Model B cabinets from the Model A CPDC. Vertical powering should be used when adding a CLMI to a new lineup in a Remote office that uses horizontal powering.

- 2) Provide one (1) Horizontal Power Kit, NTRX30PC, if a horizontal power arrangement is used. With horizontal powering, the CPDC must be in the same lineup as the cabinets that it serves.

- RUL3 1) Provide Ringing Generators (NTZZ08FT/GT/HT) when analog ringing is required. Select the appropriate vintage of the Ringing Generator CP per market requirements as defined in the following chart:

MARKET	RING GENERATOR NTZZ08 VINTAGE		
	HT	FT	GT
United States (US)	-	X	-
CANADIAN	-	X	-
UNITED KINGDOM (UK)	-	-	X
AUSTRALIA	X	-	-
CHINA	X	-	-

- 2) Provide two (2) Ringing Generator Filler Faceplates NTRX25AK if Ringing Generators are not required.

- RUL4 1) Provide one (1) NTZZ17HB to equip the CLMI Cabinet shelf positions 5 and 19 or 33 and 47, or two (2) NTZZ17HBs to equip shelf positions 5 and 19 and 33 and 47 with eight (8) Line Drawers, LCAI CPs, Slot & Designation Labels, and Line Drawer Designation Labels.
- 2) Provide one (1) NTZZ17HC ISDN 2B1Q Line Concentrating Module for each LCM module used in International applications (GL03-China).

- 3) The Line Drawer (NTBX32BA) has the physical capacity of 60 Line Cards each. Refer to Engineering Manual Section (EMS) NTBX32BA (EMA2-19-ELD-1) for details.
- RUL5 1) For each unequipped Line Drawer position provide one (1) NT6X05AX.
- 2) Provide 1 LCMI Filler Kit per unequipped LCMI Module.
- RUL6 1) Provision one (1) MTA Filter Kit NTRX30JA per cabinet except when CLMI is to be connected to a CMTA cabinet.
- RUL7 1) Provision one (1) English Label Kit NTRX3541 when English language is required.
- 2) Provision one (1) German Label Kit NTRX3542 when German language is required.
- RUL8 1) Provision one (1) Fan Power Control Module, NTRX54BA, when -48v is required.
- 2) Provision one (1) Fan Power Control Module, NTRX54AA, when -60v is required.

LCM FOR CLCE INTERNATIONAL MODEL B

PEC CODE: NTZZ08MB

CPC CODE: B0242056

RATING: Standard.

REPLACES: NTZZ08MA

REPLACED BY: Not Applicable

ABBREVIATION NAME: CLCM

ENGINEERING DESCRIPTION: The NTZZ08MB is an Line Concentration Module (LCM) designed for use in the CLCE International Model B. It contains the Common Circuits suitable for line circuits operating in a telephonic standards environment which is not equivalent to North American standards as far as the subscriber line interface is concerned. It also contains ten (10) Line Drawers and is capable of serving up to 640 subscriber lines.

REFERENCE DOCUMENTATION: MSRX30CA 01 06

MARKETS: Applicable markets:

Europe
Asia/Pacific

| ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ08MB EMB2-09-LCM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 03 11	ECM 683 03	Initial release
94 06 27	ECM 619 23	EC 024-91268.
94 12 09	ECM 683 13	EC 011-20036
96 02 09	ECM 619 39	Change A0285591 to A0384362 per ET83293/SR RR60311.

The LCM for CLCE International Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CLCE LCM Common CP (Int.)	NT6X04ND		1			AP
Power Converter	NT6X53AA		1	X+14	23	AP-01
Extended LCM Processor	NT6X51AC		1	X+14	22 note	AP-01
Digroup Controller (Int.)	NT6X52AB		1	X+14	21	AP-01
Line Drawer (International)	NT6X05BA		5	X+14		AP
Line Circuits	As Req'd			X+14	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2
Power Converter	NT6X53AA		1	X	23	AP-01
Extended LCM Processor	NT6X51AC		1	X	22	AP-01
Digroup Controller (Int.)	NT6X52AB		1	X	21	AP-01
Line Drawer (International)	NT6X05BA		5	X		AP
Line Circuits	As Req'd			X	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
A0285591	MD	A0384362

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf position occupied in the containing cabinet.
- 2) The two lower rows of line card slots form one LSG and the upper two rows of line card slots form the other LSG. Each

LSG has 32 line card slots (00-31). Each row within an LSG has 16 line card slots (i.e. each LD has up to 64 line card slots).

RULES:

- AP 1) When PEC NTZZ08MB is ordered, these items are provided.
- RUL1 1) Refer to Table C-1, Section EMA14-03-000, for the list of line cards that are provisionable on the Line Drawer, their associated provisioning rules and assignment restrictions.
- 2) One Type A Line Card in slot 00 in line subgroup 00 must be provided for each LCM on a dedicated basis for diagnostic/testing purposes when analog ringing is required (i.e. in the absence of analog ringing, this slot is available for subscriber use).
- 3) Provide one (1) NT6X20AA Message Waiting Converter CP in the Line Drawer if there are any NT6X19AA, Line Card Type E4 in the Line Drawer.
- 4) Provide one (1) NT6X23AA, Power Converter (+48V) CP per line drawer (NT6X05AA) if there are any Type B line cards with +48V (NT6X18AB) and this +48V feature is required.
- 5) For datapath loop testing, one (1) NT6X99AA IBERT Line Card can be provided per LCM equipped with a data line card. Locate this NT6X99AA on slot 1 in line subgroup 00.
- If switch bit error rate testing is required, two (2) NT6X99AA IBERT Line Cards should be provided for each LCM in the office. Locate one (1) NT6X99AA on slot 1 in line subgroup 00 of an LCM and one (1) NT6X99AA on slot 0 in line subgroup 10 of the same LCM (i.e. one (1) NT6X99AA per LCA)
- For more information, refer to Section EMA14-03-000 Table C Line Drawer Provisionable Cards.
- RUL2 1) Provide one (1) Line Drawer Cutoff Strap for each line drawer whose line cards are to be held simultaneously cut-off per Telco requirements.

LCM FOR CABINETIZED LCE MODEL B
NORTH AMERICA

PEC CODE: NTZZ08BC

CPC CODE: B0242055

RATING: Standard.

REPLACES: NTZZ08BB

REPLACED BY: Not Applicable

ABBREVIATION NAME: CLCM

ENGINEERING DESCRIPTION: The Line Concentrating Module (CLCM) NTZZ08BC is a subsidiary peripheral module designed for use in the CLCE Model B cabinets. It provides an interface between 640 analog subscriber lines on its P-side and the switch network, via line (LGC) or trunk controllers (LTC), on its C-side. The NTZZ08BC contains common circuits and ten (10) line drawers capable of housing up to 640 line cards.

REFERENCE DOCUMENTATION: MSRX30CA 01 06

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ08BC EMB2-09-LCM-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 03 11	ECM 683 03	Initial release
94 08 04	ECM 683 07	Added AP-01 note and line drawer positions
94 12 09	ECM 683 13	EC 11-20036
96 02 09	ECM 619 39	Change A0285591 to A0384362 per ET83293/SR RR60311.
96 08 23	ECM 619 41	Correct PEC in AP-01 note per CADES input.

The LCM For Cabinetized LCE Model B North America is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CLCE LCM Common CP	NT6X04MD		1			AP
Power Converter	NT6X53AA		1	X+14	23	AP-01
Extended LCM Processor	NT6X51AC		1	X+14	22 note	AP-01
Digroup Controller	NT6X52AA		1	X+14	21	AP-01
Line Drawer	NT6X05AA		5	X+14	01-05	AP
Line Circuits	As Req'd			X+14	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2
Power Converter	NT6X53AA		1	X	23	AP-01
Extended LCM Processor	NT6X51AC		1	X	22	AP-01
Digroup Controller	NT6X52AA		1	X	21	AP-01
Line Drawer	NT6X05AA		5	X	01-05	AP
Line Circuits	As Req'd			X	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
A0285591	MD	A0384362

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf position occupied in the containing cabinet.

- 2) The two lower rows of line card slots form one LSG and the upper two rows of line card slots form the other LSG. Each LSG has 32 line card slots (00-31). Each row within an LSG has 16 line card slots (i.e. each LD has up to 64 line card slots).

RULES:

AP 1) When PEC NTZZ08BC is ordered, these items are provided.

AP-01 1) This PEC is always provided on the NT6X04MD CLCE LCM Common CP, and is shown here for completeness.

RUL1 1) Refer to Table C-1, Section EMA14-03-000, for the list of line cards that are provisionable on the Line Drawer, their associated provisioning rules and assignment restrictions.

- 2) One Type A Line Card in slot 00 in line subgroup 00 must be provided for each LCM on a dedicated basis for diagnostic/testing purposes when analog ringing is required (i.e. in the absence of analog ringing, this slot is available for subscriber use).

- 3) Provide one (1) NT6X20AA Message Waiting Converter CP in the Line Drawer if there are any NT6X19AA, Line Card Type E4 in the Line Drawer.

- 4) Provide one (1) NT6X23AA, Power Converter (+48V) CP per line drawer (NT6X05AA) if there are any Type B line cards with +48V (NT6X18AB) and this +48V feature is required.

- 5) For datapath loop testing, one (1) NT6X99AA IBERT Line Card can be provided per LCM equipped with a data line card. Locate this NT6X99AA on slot 1 in line subgroup 00.

If switch bit error rate testing is required, two (2) NT6X99AA IBERT Line Cards should be provided for each LCM in the office. Locate one (1) NT6X99AA on slot 1 in line subgroup 00 of an LCM and one (1) NT6X99AA on slot 0 in line subgroup 10 of the same LCM (i.e. one (1) NT6X99AA per LCA)

For more information, refer to Section EMA14-03-000 Table C Line Drawer Provisionable Cards.

RUL2 1) Provide one (1) Line Drawer Cutoff Strap for each line drawer whose line cards are to be held simultaneously cut-off per Telco requirements.

RINGING GENERATOR CABINET SYS (NORTH AMERICA)

PEC CODE: NTZZ08FT

| CPC CODE: B0245695

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the top shelf of the CLCE.

REFERENCE DOCUMENTATION: SLZZ08FT 00 01

MARKETS: Applicable markets:

US
Canada
CALA

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ08FT EMB2-09-RG1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 619 39	NTZZ08FT introduced per BB Rat and GMF recommendations.

The RINGING GENERATOR CABINET SYS (NORTH AMERICA) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringin Generator CP	NT6X30HA		2	65	1,2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

AP 1) When PEC NTZZ08FT is ordered, these items are provided.

CCS7 ST FILLER FACEPLATES

NTZZ05GA

RATING: Standard

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: CCS7 Signaling Terminals are provisioned in pairs on shelves 18 and 32 and paired locations on shelf 51, when equipped. NTZZ05GA provides one filler faceplate for use on unequipped Signaling Terminal slots on shelves 18, 32 and 51.

REFERENCE DOCUMENTATION:	SLZZ05GA 00 01
	NTZZ05GA REL 01

The CCS7 ST Filler Faceplates is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplates	NT0X50AA		1	XX	YY	AP
NT0X50AA Label	P0578498		1	XX	YY	AP

RULES:

- AP 1) When PEC NTZZ05GA is ordered, these items are provided.
- 2) One Filler Faceplate (NT0X50AA) and label is provided by this Building Block. Assign either to shelf 51 where YY = card position 04,05,06,07,08,09,10,18,19,20,21,22,23 or 24 or to shelves 18 and 32, where YY = slots 6,5 and 4.

CCS7 SIG TERMINAL I/F

NTZZ05FA

RATING: Standard

ABBREVIATION NAME: STI

ENGINEERING DESCRIPTION: Signaling Terminals with Terminators are
provisioned on the next to last ST7G shelf
containing ST.

REFERENCE DOCUMENTATION:	SLZZ05FA 00 01
	NTZZ05FA REL 01

The CCS7 Sig Terminal I/F is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Signalling Terminal CP	NT6X68AC		1	18	08	AP
Signalling Terminal CP	NT6X68AC		1	32	08	AP
NT6X68AC Label	P0647823		2	18,32	08	AP

RULES:

AP 1) When PEC NTZZ05FA is ordered, these items are provided.

CCS7 SIG TERMINAL I/F WITH TERMINATOR

NTZZ05DA

RATING: Standard

ABBREVIATION NAME: STI

ENGINEERING DESCRIPTION: Signaling Terminals with Terminators are provisioned on the last MSB or ST7G shelf containing ST.

| REFERENCE DOCUMENTATION: | SLZZ05DA 00 01
| NTZZ05DA REL 01

The CCS7 Sig Terminal I/F with Terminator is comprised of the following:

EQUIPMENT		PEC	ABBR	QTY	SHF POS	CP POS	RULE
ST I/F with Terminator	CP	NT6X68AD		1	18	08	AP
CCS7 Signaling Terminal	CP	NT6X68AD		1	32	08	AP
NT6X68AD Label		P0647824		2	18,32	08	AP

RULES:

AP 1) When PEC NTZZ05DA is ordered, these items are provided.

INTERNATIONAL CMS7, MODEL B

PEC CODE: NTZZ37HC

CPC CODE: B0243019

RATING: STD

REPLACES: NTZZ37HB

REPLACED BY: None

ABBREVIATION NAME: CMS7

ENGINEERING DESCRIPTION: The NTZZ37HC Model B International Cabinetized Message Switch 7 (CMS7) contains two Message Switch Buffer 7 (MSB7) shelves and two STG7 shelves. The MSB7 shelves are connected to each plane of the CDSN Network through the CSLC via bulkhead DS30 cabling.

Each of the MSB7 shelves can take 4 STs. Each of the STG7 shelves can take 16 STs in 2 groups of 8 STs each. Thus the CMS7 may contain up to 40 STs.

The NTZZ37HC may be provisioned as either a gray or a brown cabinet.

REFERENCE DOCUMENTATION: SLZZ37HC 00 01
MSRX48BA 01 02

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37HC EMB2-11-ZZ37HC CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 04 18	ECM 692 04	Introduce NTZZ37HC Building Block.

The International CMS7, Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CMS7	NTRX48BA		1			AP
C28 Cabinet Assembly	NTRX25AA		1			AP-01
C28 Cabinet Mech. Sub-Assy.	NTRX2570		1			AP-02
Cabinet Joinng EMI C-Channel	P0741484		2			AP-02
C28 Cabinet Mechanicals	NTRX25AA		1			AP-01
CIPE MSP Kit	NTRX4825	MSP	1	61		AP
Fan Power control	NTRX54BA		1	61	19	AP
Signal Term Shelf Assy	NT6X0801	STE	2	33,47		AP-01
Power Converter	NT2X70AF			33,47	01	RUL3
Filler Faceplate 2.62	NT0X50AE			33,47	01	RUL3
Signaling Terminal CCS7 CP	NT6X66AA			33,47	04-11	RUL1
Signaling Terminal DPNSS CP	NT6X66CA			33,47	04-11	RUL1
Filler Face Plate	NT0X50AA			33,47	04-11	RUL1
Sig. Term. Interface (STI)	NT6X68AC			33,47	12,13	RUL2
STI With Terminator	NT6X68AD			33,47	12,13	RUL2
Filler Face Plate	NT0X50AA			33,47	12,13	RUL2
Filler Face Plate	NT0X50AA		2	33,47	14	AP
Sig. Term. Interface (STI)	NT6X68AC			33,47	15,16	RUL2
STI With Terminator	NT6X68AD			33,47	15,16	RUL2
Filler Face Plate	NT0X50AA			33,47	15,16	RUL2
Signaling Terminal CCS7 CP	NT6X66AA			33,47	17-24	RUL1
Signaling Terminal DPNSS CP	NT6X66CA			33,47	17-24	RUL1
Filler Face Plate	NT0X50AA			33,47	17-24	RUL1
Power Converter	NT2X70AF			33,47	25	RUL3
Filler Faceplate 2.62	NT0X50AE			33,47	25	RUL3
MSB7 Shelf Assembly	NT6X3201	STA7	2	05,19		AP-01
Power Converter	NT2X70AF		2	05,19	01	AP
Desig. Label (NT2X70AF)	P0809960		2	05,19	01	AP
Signaling Terminal CCS7 CP	NT6X66AA			05,19	04-07	RUL1
Signaling Terminal DPNSS CP	NT6X66CA			05,19	04-07	RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Sig. Term. Interface (STI)	NT6X68AC			05,19	08	RUL2
STI With Terminator	NT6X68AD			05,19	08	RUL2
Filler Face Plate	NT0X50AA			05,19	08	RUL2
Sig. Term. Interface (STI)	NT6X68AC		2	05,19	09	AP
Signal Terminal Buffer	NT6X67AA		2	05,19	10	AP
Master Signal Processor	NT6X45BA		2	05,19	11	AP
Filler Face Plate	NT0X50AA		2	05,19	12	AP
Master Processor Memory	NT6X47AB		2	05,19	13	AP
Filler Face Plate	NT0X50AA		2	05,19	14	AP
Signal Processor Memory	NT6X46BB		2	05,19	15	AP
Master Signal Processor	NT6X45BA		2	05,19	16	AP
DS30A LCM Interface	NT6X48AA		2	05,19	17	AP
Time Switch	NT6X44EA		2	05,19	18	AP
Filler Face Plate	NT0X50AA		2	05,19	19	AP
CPP Message Protocol CP	NT6X69LB		2	05,19	20	AP
Filler Face Plate	NT0X50AA		2	05,19	21	AP
Cannel Supervision Msg.	NT6X42AA		2	05,19	22	AP
Speech Bus Formatter	NT6X41AB		2	05,19	23	AP
DS30 Network Interface	NT6X40AC		2	05,19	24	AP
Power Converter	NT2X70AF		2	05,19	25	AP
Desig. Label (NT2X70AF)	P0809960		2	05,19	25	AP
Cooling Unit	NTRX92AA		1	00		AP
CMS7 Ext. Pwr Filter Cbl Kit	NTRX48BD		1			RUL6
CMS7 Horizontal Pwr. Cbl Kit	NTRX48BE		1			RUL6
Door Label	P0731041		1			AP
Designation Strip	P0737136		2	05,19		AP
Desig. Label (NT6X69LB)	P0713213		2	05,19	20	AP
Desig. Label (NTRX54BA)	P0741680		1	61	19	AP
Desig. Label (NT2X70AF)	P0809960			33,47	01,25	RUL4
Desig. Label (NT6X66AA)	P0647822			33,47	04-11	RUL4
				33,47	17-24	
				05,19	04-07	
Desig. Label (NT6X66CA)	P0689915			33,47	04-11	RUL4
				33,47	17-24	
				05,19	04-07	
Desig. Label (NT6X68AC)	P0647823			33,47	12,13	RUL4
				33,47	15,16	
				05,19	08	

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label (NT6X68AD)	P0647824			33,47 33,47 05,19	12,13 15,16 08	RUL4
English Label Kit	NTRX3541					RUL5
German Label Kit	NTRX3542					RUL5
C28 Cabinet Mechanicals	NTRX25AA					NOTE1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) The NTZZ37HC has system level provisionable items covering
the following:

Seismic zone provisioning,

Grounding options,

Cable routing options,

Cabinet Fail Lamp provisioning, and

Cabinet door provisioning.

For details of the above, refer to the Engineering Manual Section for the NTRX25AA, C28 Cabinet Mechanical Assembly.

RULES:

- AP 1) When PEC NTZZ37HC is ordered, these items are provided.
- 2) Two always provided message switch buffer array shelves NT6X3201 on positions 5,19 and two NT6X0801 signaling terminal equipment shelves on position 33,47 make up the MSB7 00/01 and STE 0/1 respectively.
- AP-01 1) This PEC is Always Provided with NTRX48BA Cabinetized Message Switch 7 (CMS7) and is shown here for completeness.
- AP-02 1) This PEC is always provided in the NTRX25AA Cabinet Mechanical Assembly, which itself is always provided in the NTRX48BA CMS7, and is shown here for completeness.
- RUL1 1) Signaling links are provisioned in pairs. Provide a pair of Signaling Terminal (ST) circuit packs per signaling link pair as follows:
- For UK CCS7 provide:
 - two (2) NT6X66AA ST CCS7 CPs, or
 - For UK DPNSS provide:
 - two (2) NT6X66CA ST DPNSS CPs.

For reliability, the two ST circuit packs associated with a signaling link pair must be provided in slots powered by different power feeds (A & B).

Please refer to the table on the following page for the power feed and ST group definitions and the order in which ST CP pairs should be assigned.

- 2) For each slot not equipped with an ST circuit pack provide:
- one (1) NT0X50AA Filler Face Plate.

PAIR NUMBER	ST POSITION Shelf-Slot	ST GROUP	POWER FEED
0	05-07	0	A

1	19-07	1	B
	05-06	0	A
	19-06	1	B
2	05-05	0	A
	19-05	1	B
3	05-04	0	A
	19-04	1	B
4	33-17	2	B
	33-11	3	A
5	33-18	2	B
	33-10	3	A
6	33-19	2	B
	33-09	3	A
7	33-20	2	B
	33-08	3	A
8	33-21	2	B
	33-07	3	A
9	33-22	2	B
	33-06	3	A
10	33-23	2	B
	33-05	3	A
11	33-24	2	B
	33-04	3	A
12	47-17	4	B
	47-11	5	A
13	47-18	4	B
	47-10	5	A
14	47-19	4	B
	47-09	5	A
15	47-20	4	B
	47-08	5	A
16	47-21	4	B
	47-07	5	A
17	47-22	4	B
	47-06	5	A
18	47-23	4	B
	47-05	5	A
19	47-24	4	B
	47-04	5	A

RUL2 1) For the UK (CCS7 and DPNSS) provide NT6X68AC and NT6X68AD CPs as follows:

- ST Group pair 0 and 1 (STA7 shelves 05 and 19):

- When ST group pair 0 and 1 (see table of RUL1) is not the last ST group pair in the office (ie if ST pair(s) provisioned in ST group pair 2 and 3), provide in CP slots 08 of shelves 05 and 19:
 - two (2) NT6X68AC STI CPs, or
- When ST group pair 0 and 1 is the last ST group pair in the office (ie if no ST is provisioned in ST group pair 2 and 3), provide in CP slots 08 of shelves 05 and 19:
 - two (2) NT6X68AD STI with Terminator CPs.
- ST Group Pair 2 and 3 (STG7 shelf 33):
 - When at least one ST pair is provisioned in ST group pair 2 and 3 (see table of RUL1), provide:
 - in CP slots 15 and 16 of shelf 33
 - two (2) NT6X68AC STI CPs.
 - in CP slots 12 and 13 of shelf 33
 - When ST group pair 2 and 3 is not the last ST group pair in the office (ie if ST pair(s) provisioned in ST group pair 4 and 5),
 - two (2) NT6X68AC STI CPs, or
 - When ST group pair 2 and 3 is the last ST group pair in the office (ie if ST pair(s) not provisioned in ST group pair 4 and 5),
 - two (2) NT6X68AD STI with Terminator CPs.
 - ST Group Pair 4 and 5 (STG7 shelf 47):
 - When at least one ST pair is provisioned in ST group pair 4 and 5 (see table of RUL1), provide:
 - in CP slots 15 and 16 of shelf 47
 - two (2) NT6X68AC STI CPs.

- in CP slots 12 and 13 of shelf 47
 - When ST group pair 4 and 5 is not the last ST group pair in the office
 - two (2) NT6X68AC STI CPs, or
 - When ST group pair 4 and 5 is the last ST group pair in the office
 - two (2) NT6X68AD STI with Terminator CPs.
 - 2) For each slot not equipped with an STI circuit pack provide:
 - one (1) NT0X50AA Filler Face Plate.
- RUL3 1) Provide NT2X70AF CPs as follows:
- STG7 shelf 33 (ST Group pair 2 and 3), when at least one ST pair is provisioned in ST group pair 2 and 3 (see table of RUL1), provide in CP slots 01 and 25:
 - two (2) NT2X70AF +-5/12V Power Converter 50A CPs.
 - STG7 shelf 47 (ST Group pair 4 and 5), when at least one ST pair is provisioned in ST group pair 4 and 5 (see table of RUL1), provide in CP slots 01 and 25:
 - two (2) NT2X70AF +-5/12V Power Converter 50A CPs.
- 2) For each slot 01 or 25 of shelves 33 and 47 not equipped with NT2X70AF Power Converter, provide:
- one (1) NT0X50AE Filler Face Plate.
- RUL4 1) Provide the appropriate designation label for each CP provided.
- RUL5 1) For each cabinet, provide:
- one (1) NTRX3541 English Label Kit, or
 - one (1) NTRX3542 German Label Kit.
- RUL6 1) Provide one (1) NTRX48BD external power filter cable kit when the CMS7 cabinet requires external power. A maximum of

three (3) Model B Cabinets, including CMS7, with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).

- 2) Provide one (1) NTRX48BE horizontal power cable kit when the CMS7 cabinet requires horizontal power. A horizontal power arrangement is used in Cabinetization Model A lineups. The NTRX48BE horizontal power cable kit may be used when CMS7 Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).

MESSAGE SIGNALING 7 FRAME

PEC CODE: NTZZ05AA

CPC CODE: B0231837

| RATING: A&M

REPLACES: NTZZ05HA and NTZZ05JA

REPLACED BY: Not Applicable

ABBREVIATION NAME: MS7E

ENGINEERING DESCRIPTION: The Message Switch and Buffer 7 (MS7E) Frame consists of one MSB7 module and one ST7G shelf. The MSB7 is a dual shelf peripheral, based on the LTC hardware and architecture. The MSB7 performs two main tasks. It provides and maintains a path from the CCS7 digital signalling data link, which is switched through the network (i.e. a Nailed Up Connection), to the CCS7 signalling terminal, and, it performs the message switching and distribution function between the DTC's and the appropriate ST's.

The ST's are located on the MSB7 shelves (maximum 4 per shelf) and on the ST7G shelf (maximum 16). Therefore, a maximum of 24 ST's can be provided on the MS7E frame. The MSB7 can interface a maximum of 120 interperipheral message links (PML) on the C side and a maximum of 72 ST's. Refer to MS6X09AA - Signalling Terminal 7 Extension Frame (ST7E) when the office requires more than 24 ST's.

The NTZZ05AA Building Block includes the basic MS7E frame components and one pair of Signaling Terminal circuit packs. Additional pairs of ST packs can be added using Building Block NTZZ05BA, per office requirements.

CAUTION: As of CSP07 (for example; NA007, CDN007, TOPS07) CCS7 links on MSB7 platforms are no longer supported in the DMS switch.

A newer CCS7 peripheral must be provisioned before adding the CSP07 software. Newer CCS7 peripherals include the FLIS, LIM and SNSE LIS.

REFERENCE DOCUMENTATION: SLZZ05AA 00 08
NTZZ05AA REL 07

MARKETS: Applicable markets:

Europe

ISSUE AUTHOR: NTC: Jerry Palmer Dept. 3471 (RTP)

MAIN CONTACT: NTC: Jerry Palmer Dept. 3471 (RTP)

NTZZ05AA EMB2-11-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 07	----- ECM 603 04	Previous history not available EC #018-39307 - Replace NT0X25AV with NT0X25AH. Change status of NT0X25AV to A&M.
93 11 30	ECM 603 05	The NT0X25AA Common Framework has been MD'd and replaced by the NT0X25AH Earthquake Framework which in turn has been renamed to the 'Universal Framework.' The NTZZ05HA and NTZZ05JA BBLKs have been MD'd and replaced by NTZZ05AA.
94 02 18	ECM 603 06	To slve ET 41853. Modification to RUL2 and RUL3 in this section.
95 05 24	ECM 603 07	MD NT6X32CC Common Circuit Pack Fill per ECD 024-93165. For documentation purposes, changed NT2X70AE to NT2X70AF per ECD 024-93972.
96 12 03	ECM 603 09	Section is now at Standard status, added new Common CP fill (NT6X32CE) per EC 24-96109.
97 03 03	ECM 603 10	Add Caution note that MSB7 links are not supported by CSP07 and higher software in the DMS office.

The Message Signaling 7 Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Message Signaling 7 Equip.	NT6X31AA		1			AP
Cage Filler Panel Assembly	NT0X84AA		1	65		AP-01
Cage Filler Panel Assembly	NT0X84AA			51		RUL1
Signaling Term. Group 7 Sh.	NTZZ05CA			51		RUL1
Signalling Terminal	NTZZ05EA			51	04-10	RUL2
Filler Face Plate 0.875	NTZZ05GA			51	04-10	RUL2
Frame Supervisory Panel	NT0X28AP	FSP	1	45		AP-01
Sig. Term Array 7 Shf Assy	NT6X3201	STA71	1	32		AP-01
Power Converter	NT2X70AF		2	32	01, 25	AP
CCS7 Signalling Terminal CP	NT6X66AC	ST	1	32	07	AP
Filler Face Plate 0.875	NTZZ05GA			32	06-04	RUL2
Signalling Terminal	NTZZ05BA			32	06-04	RUL2
STI with Terminator	NTZZ05DA			32	08	RUL3
Signaling Terminal I/F	NTZZ05FA		1	32	08	RUL3
Signaling Terminal I/F	NT6X68AC		1	32	09	AP-02
Signaling Terminal Buffer	NT6X67AA		1	32	10	AP-02
LGC/LTC Processor	NT6X45BA		2	32	11, 16	AP
Filler	NT0X50AA		3	32	14, 19, 21	AP
MP Memory Plus CP	NT6X47AB		1	32	13	AP-02
SP Memory Plus CP	NT6X46BB		1	32	15	AP
DS30A LCM I/F CP	NT6X48AA		1	32	17	AP-02
Time Switch	NT6X44AB		1	32	18	AP-02
CPP Msg.Protocol CP	NT6X69AC		1	32	20	AP
Channel Supervision CP	NT6X42AA		1	32	22	AP-02
Speech Bus Formatter	NT6X41AA		1	32	23	AP-02
DS30 Network I/F	NT6X40AC		1	32	24	AP
Sig. Term Array 7 Shf Assy	NT6X3201	STA70	1	18		AP-01
# MS7B Common CP	NT6X32CC		1	18		AP
MS7B Common CP	NT6X32CE		1	18		AP
Power Converter	NT2X70AF		2	18	01, 25	AP
CCS7 Signalling Terminal CP	NT6X66AC	ST	1	18	07	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NTZZ05GA			18	06-04	RUL2
Signalling Terminal	NTZZ05BA			18	06-04	RUL2
STI with Terminator	NTZZ05DA			18	08	RUL3
Signalling Terminal I/F	NTZZ05FA			18	08	RUL3
Signaling Terminal I/F	NT6X68AC		1	18	09	AP-02
Signaling Terminal Buffer	NT6X67AA		1	18	10	AP-02
LGC/LTC Processor	NT6X45BA		2	18	11, 16	AP
Filler	NT0X50AA		3	18	14, 19, 21	AP
MP Memory Plus CP	NT6X47AB		1	18	13	AP-02
SP Memory Plus CP	NT6X46BB		1	18	15	AP
DS30A LCM I/F CP	NT6X48AA		1	18	17	AP-02
Time Switch	NT6X44AB		1	18	18	AP-02
CPP Msg.Protocol CP	NT6X69AC		1	18	20	AP
Channel Supervision CP	NT6X42AA		1	18	22	AP-02
Speech Bus Formatter	NT6X41AA		1	18	23	AP-02
DS30 Network I/F	NT6X40AC		1	18	24	AP
Desig. Label (NT2X70AF)	P0809960		4	18, 32	01, 25	AP
Desig. Label (NT6X66AC)	P0729818		2	18, 32	04	AP
Desig. Label (NT6X45BA)	P0665152		4	18, 32	11, 16	AP
Desig. Label (NT6X40AC)	P0695397		2	18, 32	24	AP
Desig. Label (NT6X46BB)	P0711664		2	18, 32	15	AP
Desig. Label (NT6X69AC)	P0710476		2	18, 32	20	AP
Desig. Strip (NT6X32CC)	P0708176		2			AP-02
Cooling Inverter Unit	NT3X90AC	CU	1	04		AP
% Universal Framework	NT0X25AH	FW	1			AP
Cable Assembly	NT0X26GR					RUL4
Cable Assembly	NT0X26GS					RUL4
Cable Assembly	NT0X26GT					RUL5
Cable Assembly	NT0X26GV					RUL5
Power Cable Assembly	NT0X95BX&BV					RUL6
Power Cable Assembly	NT0X95CG&CH					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT6X32CC NT2X70AE	MD MD	NT6X32CE NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A new Common CP Fill (NT6X32CE) will allow the MSB7 frame to be added to existing offices, in new offices the LIM cabinet should be provisioned.

RULES:

- AP 1) When PEC NTZZ05AA is ordered, these items are provided.
- 2) Two always provided 7 Signalling Terminal Array Shelves NT6X3201 on positions 18 and 32 make up the Message Switching Buffer Module 7, MSB7.
- The lower shelf, STA7 0 is "A" powered.
The upper shelf, STA7 1 is "B" powered.
- 3) Frame Supervisory Panel NT0X28AP has one always provided Converter Drive & Protection CP, NT0X91AE, and one Alarm & Converter Drive CP, NT0X91AA.
- AP-01 1) This PEC is always provided on the NT6X31AA Frame, and is shown here for completeness.
- AP-02 1) This PEC is always provided on the NT6X32CC MSB7 Common CP, and is shown here for completeness.
- RUL1 1) Provide Building Block NTZZ05CA if more than four pairs of Signaling Terminals are required in the MS7E frame. Otherwise, provide one NT0X84AA for shelf position 51.
- RUL2 1) Provide NTZZ05GA fillers for each slot not equipped with Signaling Terminal circuit packs.
- 2) Provide one (1) NTZZ05BA, Signaling Terminal CP, for each additional Signalling Terminal required. Assign NTZZ05BA to shelf position 18 card slots 06,05,04. The card slots 06,05,04 at shelf position 32 are automatically configured when using this BB. Refer to NTZZ05BA for Always Provided (AP) items in that BB.
- 3) If ST requirements exceed four (4) pairs, an additional NTZZ05CA shelf is required. One ST pair is included with NTZZ05CA. If additional STs are required, assign NTZZ05EAs to shelf 51, card slots 10-04.
- RUL3 1) Provide one (1) NTZZ05FA, Signalling Terminal Interface, if the NTZZ05CA Signalling Term Group 7 Shelf common CP has been provisioned. Assign to card slot 08 at shelf position 18. The card slot 08 at shelf position 32 is automatically configured when using this BB. Refer to NTZZ05FA for Always Provided (AP) items in that BB.
- 2) Provide one (1) NTZZ05DA, STI with Terminator, if the NTZZ05CA Signalling Term Group 7 Shelf Common CP has not

been provisioned. Assign to card slot 08 at shelf position 18. The card slot 08 at shelf position 32 is automatically configured when using this BB. Refer to NTZZ05DA for Always Provided (AP) items in that BB.

- RUL4 1) Provide two (2) Cable Assemblies (NT0X26GR) when ST7G (NTZZ05CA) is provided in position 51. The cable will run from shelf 18-08 to 51-16.
- 2) Provide two (2) Cable Assemblies (NT0X26GS) when ST7G (NTZZ05CA) is provided in position 51. The cable will be run from shelf 32-08 to 51-15.
- RUL5 1) Provide one (1) of each cables NT0X26GT and NT0X26GV to extend the MSB7 DS-30A speech bus to STG:0 on the ST7G, i.e. the cables run from pos 18-17 to 51-15 and from pos 32-17 to 51-16 respectively.
- 2) Provide two (2) additional cables, one each of NT0X26GT and NT0X26GV when Signalling Terminals (NT6X66AA/AC) are provisioned on the STG:1 of the ST7G, i.e. the cables run from pos 18-17 to 51-13 and from pos 32-17 to 51-12 respectively.
- RUL6 1) Provide one (1) each of power cables NT0X95CG, NT0X95CH, and NT0X95BX, NT0X95BV when ST7G (NTZZ05CA) is provided.

CCS7 SIGNALING TERMINAL PAIR (MSB7)

PEC CODE: NTZZ05BA

CPC CODE:

| RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: ST

ENGINEERING DESCRIPTION: CCS7 Signaling Terminals are provisioned in pairs. Building Block NTZZ05BA provides one ST pair which can be provisioned on the ST7 shelves which are provided as a part of all MSB7s. This Building Block should be applied based on the number of Signaling Terminal pairs required.

REFERENCE DOCUMENTATION: SLZZ05BA 00 02
NTZZ05BA REL 02

MARKETS: Applicable markets:

Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ05BA EMB2-11-003 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 24	----- ECM 603 07	Previous history not available Section is classed MD as CP Fill has been MDd per ECD 024-93165. Section is now at Standard status, added new Common CP fill (NT6X32CE) per EC 24-96109.
96 12 03	ECM 603 09	

The CCS7 Signaling Terminal Pair (MSB7) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CCS7 Signaling Terminal CP	NT6X66AC		1	18	YY	AP
CCS7 Signaling Terminal CP	NT6X66AC		1	32	YY	AP
NT6X66AC Label	P0729818		2	18,32	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTZZ05BA is ordered, these items are provided.
- 2) Two Signaling Terminal CP (NT6X66AC) and labels are provided by this Building Block. Assign the pair of ST to shelves 18 and 32 where YY= card position 06,05,04.

CCS7 SIGNALING TERMINAL PAIR (ST7G)

PEC CODE: NTZZ05EA

CPC CODE:

| RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: ST

ENGINEERING DESCRIPTION: CCS7 Signaling Terminals are provisioned in pairs. Building Block NTZZ05EA provides one ST pair which can be provisioned on the optional NT6X08AA shelf which can be added to the MS7E frame via Building Block NTZZ05CA. This Building Block should be applied when the quantity of Signaling Terminal pairs exceeds five (5).

REFERENCE DOCUMENTATION: SLZZ05EA 00 02
NTZZ05EA REL 02

MARKETS: Applicable markets:

Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ05EA EMB2-11-004 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 24	----- ECM 603 07	Previous history not available Section is classed MD as CP Fill has been MDd per ECD 024-93165. Section is now at Standard status, added new Common CP fill (NT6X32CE) per EC 24-96109.
96 12 03	ECM 603 09	

The CCS7 Signaling Terminal Pair (ST7G) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CCS7 Signaling Terminal CP	NT6X66AC		2	51	Y,28-Y	AP
NT6X66AC Label	P0729818		2	51	Y,28-Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ05EA is ordered, these items are provided.
2) Two Signaling Terminal CP (NT6X66AC) and labels are provided by this Building Block. Assign the pair of ST to shelf 51 where Y = card position 10,09,08,07,06,05, or 04.

SIGNALING TERMINAL 7 GROUP SHELF

PEC CODE: NTZZ05CA

CPC CODE:

| RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: STG7

ENGINEERING DESCRIPTION: The Signaling Terminal 7 Group Shelf is required when more than four (4) pairs of Signaling Terminal packs are required. Building Block NTZZ05CA includes the ST7 shelf equipped with one Signaling Terminal pair. Additional ST pairs may be added using Building Block NTZZ05EA, per office requirements.

REFERENCE DOCUMENTATION: SLZZ05CA 00 04
NTZZ05CA REL 04

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ05CA EMB2-11-005 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 24	----- ECM 603 07	Previous history not available Section is classed MD as CP Fill has been MDd per ECD 024-93165. Section is now at Standard status, added new Common CP fill (NT6X32CE) per EC 24-96109.
96 12 03	ECM 603 09	

The Signaling Terminal 7 Group Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ST7 Group Shelf Assembly	NT6X08AA		1	51		AP
Power Converters	NT2X70AE		2	51	1, 25	AP
CCS7 ST CP	NT6X66AA		2	51	11, 17	AP
STI	NT6X68AC		2	51	12, 13	AP
STI with Term	NT6X68AD		2	51	15, 16	AP
Filler	NT0X50AA		1	51	14	AP
Connector Key Bracket	P0638270		16	51	4-11	AP
				51	17-24	
Connector Key Bracket	P0638268		4	51	12, 13	AP
				51	15, 16	
NT2X70AE Labels	P0698943		2	51	1, 25	AP
NT6X66AA Label	P0647822		2	51	4, 17	AP
NT6X68AC Labels	P0647823		2	51	12, 13	AP
NT6X68AD Labels	P0647824		2	51	15, 16	AP
Cable Support Bracket	P0638290		1	51		AP
Cable Support Bracket	P0638290		1	51		AP
Cable Support Bracket	P0638290		1	51		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ05CA is ordered, these items are provided.

ST FILLER FACE PLATE

NTZZ11EA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ11EA contains the filler face plates for the LIM required to satisfy forced air cooling requirements when STP Signalling Terminal circuit packs are not required.

REFERENCE DOCUMENTATION:

The ST Filler Face Plate is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT9X19AA		3	XX	YYF, YYF+1, YYF+2	AP
PB Filler Face Plate	NT9X19BA		1	XX	YYR+1	AP

RULES:

AP 1) When PEC NTZZ11EA is ordered, these items are provided.

XX = 26,13, or 00.

YY = 8,11,14,17,20,23,26, or 29. (F=Front, R=Rear)

BATTERY STRING PAIR

NTZZ19NA

| RATING: Manufacture Discontinued. Replaced by detail.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ19NA (Battery String Pair) contains equipment for two battery strings.

REFERENCE DOCUMENTATION: SLZZ19NA 00 04
NTZZ19NA REL 04

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ19NA EMB2-13-BSP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 10 02	ECM 514 04	Manufacture Discontinue NTZZ19NA and replace by detail.

The Battery String Pair is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
YUASA Batteries	A0323985		8			AP
Battery Tray Assembly	NT0X2056		2			AP
Design Label for Batteries	P0664827		2			AP
Screw	P097F813		16			AP
Cable Assembly	NT8X0126		6			AP

RULES:

AP 1) When PEC NTZZ19NA is ordered, these items are provided.

OPM ESA CP PACKAGE

NTZZ19QB

RATING: Standard

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: NTZZ19QB provides the circuit packs required to equip the Emergency Stand Alone (ESA) call processing feature on the OPM.

REFERENCE DOCUMENTATION: SLZZ19QB 00 01
NTZZ19QB REL 01

The OPM ESA CP Package is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Master Processor Memory CP	NT6X47AC		1	XX	14	AP
LGC/DTC Processor CP	NT6X45AF		1	XX	15	AP
ESA Clock And Tone CP	NT6X75AA		1	XX	16	AP
Desig. Label For NT6X47AC	P0711663		1	XX	14	AP
Desig. Label For NT6X45AF	P0685029		1	XX	15	AP
Desig. Label For NT6X75AA	P0642015		1	XX	16	AP

NOTES:

- 1) XX = Shelf Position 05 of OPM Equipment Bay 0 (HIE shelf).

RULES:

- AP 1) When PEC NTZZ19QB is ordered, these items are provided.

| OPM MAINTENANCE TOOLS

NTZZ19MA

RATING: Standard

ABBREVIATION NAME: OPMT

ENGINEERING DESCRIPTION: NTZZ19MA (Outside Plant Module Maintenance Tools) contains the set of provisionable OPM maintenance tools.

REFERENCE DOCUMENTATION: SLZZ19MA 00 01
NTZZ19MA REL 01

The OPM Maintenance Tools is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Corr Tool (Bix) QTBIX16A	QTBIX16A		1			AP
Corr Tool Carrying Pouch	C0054642		1			AP
Line Card Insert/Rmvl Tool	QTH56A		1			AP
Line Card Removal Tool	QTH57A		1			AP
Dbl Slot LC Insert/Removal	QTH58A		1			AP

RULES:

AP 1) When PEC NTZZ19MA is ordered, these items are provided.

RLCM ESA CP PACKAGE

PEC CODE: NTZZ16DB

CPC CODE: B0234994

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ16DB provides the circuit packs requires to enable the RLCM for emergency standalone call processing.

REFERENCE DOCUMENTATION: SLZZ16DB 00 04

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: Mark Sorrell Dept. 3471 (PPK)

NTZZ16DB EMB2-14-ESA-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 04	----- ECM 605 05	Previous history not available ET 12739 is corrected by the change in this release of this EMS. The Designation Label has been removed for the NT2X48AB Digitone Receiver. Deleted Asia/Pacific and Europe from Markets section. Replace NT2X48AB with NT2X48BB per EC 018-46775.
94 02 18	ECM 605 10	
96 10 21	ECM 605 22	

The RLCM ESA CP Package is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Master Processor Memory CP	NT6X47AC		1	38	14	AP
LGC/DTC Processor CP	NT6X45AF		1	38	15	AP
ESA Clock And Tone CP	NT6X75AA		1	38	16	AP
# 4 Chan Digitone Receiver	NT2X48AB		1	56	X	AP
4 Chan Digitone Receiver	NT2X48BB		1	56	X	AP
Desig. Label For NT6X47AC	P0711821		1			AP
Desig. Label For NT6X45AF	P0685029		1			AP
Desig. Label For NT6X75AA	P0642015		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X48AB	MD	NT2X48BB

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ16DB is ordered, these items are provided.

RLCM FRAME SUPERVISORY PANEL W/O PWR DIST

PEC CODE: NTZZ16BA

CPC CODE: B0232119

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: FSP

ENGINEERING DESCRIPTION: This FSP has slots to accommodate up to seven (7) office repeaters. When this FSP is provisioned, a PDC frame or equivalent is required.

REFERENCE DOCUMENTATION: SLZZ16BA 00 03

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: Barry Bond Dept. 3471 (PPK)

NTZZ16BA EMB2-14-FSP-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 94 02 18	----- ECM 605 10	Previous history not available Changed note to reference NTZZ16AD instead of NTZZ16AA.

The RLCM Frame Supervisory Panel W/O Pwr Dist is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT6X25AA		1			AP
RLCM FSP Assy	NT6X2501		1			AP-01
FSP Alarm Card	NT6X36AA		1		CD1	AP-01
Conv Drive & Protect Ckt	NT0X91AE		1		CD2	AP-01
Alarm & Conv Drive Card	NT0X91AA		1		CD3	AP-01
QFF1A Fuse 1 1/3 Amp	A0205202		8		01-08	AP-01
Fuse Design Disc (White)	P097P235		8		01-08	AP-01
RLCM Interconnect Cable	NT6X1429		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For provisioning information on the office repeaters, see Section EMB2-14-002 on RLCM NTZZ16AD.

RULES:

- AP 1) When PEC NTZZ16BA is ordered, these items are provided.

RLCM FRAME SUPERVISORY PANEL E/W PWR DIST

PEC CODE: NTZZ16CA

CPC CODE: B0232118

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: FSP

ENGINEERING DESCRIPTION: This FSP has slots to accommodate up to seven (7) office repeaters. Provide one (1) NTZZ16CA FSP to provide power distribution to the RLCM frame only. When this FSP is provisioned, a PDC frame or equivalent is not required.

REFERENCE DOCUMENTATION: SLZZ16CA 00 03

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: Barry Bond Dept. 3471 (PPK)

NTZZ16CA EMB2-14-FSP-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 94 02 18	----- ECM 605 10	Previous history not available Changed note to reference NTZZ16AD instead of NTZZ16AA.

The RLCM Frame Supervisory Panel E/W Pwr Dist is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT6X25BA		1			AP
RLCM FSP Assy	NT6X2520		1			AP-01
FSP Alarm Card	NT6X36AA		1		CD1	AP-01
Conv Drive & Protect Ckt	NT0X91AE		1		CD2	AP-01
Alarm & Conv Drive Card	NT0X91AA		1		CD3	AP-01
QFF1A Fuse 1 1/3 Amp	A0205202		8		01-08	AP-01
Fuse Design Disc (White)	P097P235		8		01-08	AP-01
RLCM Interconnect cable	NT6X1430		1			AP
ABS Batt Supply (NT6X25BA)	NT6X14WA		1			AP
Cable	NT6X2537		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For provisioning information on the office repeaters, see Section EMB2-14-002 on RLCM NTZZ16AD.

RULES:

- AP 1) When PEC NTZZ16CA is ordered, these items are provided.

ESA CP PACKAGE
INTERNATIONAL REMOTE LINE CONCENTRATOR MODULE

PEC CODE: NTZZ16RA

CPC CODE: B0246017

RATING: Standard

REPLACES: NTZZ41UA, NTZZ41VA, & NTZZ41WA

REPLACED BY: None

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The NTZZ16RA provides the circuit packs required to enable the RLCM for emergency standalone call processing for international markets.

REFERENCE DOCUMENTATION: SLZZ16RA 00 01

MARKETS: Applicable markets:

Asia/Pacific
CALA
Europe

ISSUE AUTHOR: NTI: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NTI: Mark Sorrell Dept. 3471 (PPK)

NTZZ16RA EMB2-14-IES-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 20	ECM 605 20	Initial Release. NTZZ16RA replaces NTZZ41UA, NTZZ41VA, & NTZZ41WA per the Functional Block program.

The ESA CP Package International Remote Line Concentrator Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
4 Chan Digitone Receiver	NT2X48CC		1	56	XX	AP
LGC/DTC Processor CP	NT6X45AF		1	38	15	AP
Master Processor Memory CP	NT6X47AC		1	38	14	AP
Desig. Label For NT2X48CC	P0678469		1			AP
ESA Clock And Tone CP	NT6X75KA		1	38	16	RUL1
ESA Clock And Tone CP	NT6X75DA		1	38	16	RUL1
Desig. Label For NT6X75DA	P0690064		1			RUL1
ESA Clock And Tone CP	NT6X75EA		1	38	16	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) SLOTS XX = 3 - 15.

RULES:

AP 1) When PEC NTZZ16RA is ordered, these items are provided.

- RUL1
- 1) Provide one (1) NT6X75KA ESA Clock And Tone CP for the China market. Designation label will be provided through the Thermal Label process in manufacturing.
 - 2) Provide one (1) NT6X75DA ESA Clock And Tone CP for the CEP market and designation label For NT6X75DA.
 - 3) Provide one (1) NT6X75EA ESA Clock And Tone CP for the UK market. Designation label will be provided through the Thermal Label process in manufacturing.

INTERNATIONAL LINE CONCENTRATING MODULE

PEC CODE: NTZZ43MB

CPC CODE: B0242208

RATING: Standard.

REPLACES: NTZZ43MA

REPLACED BY: Not Applicable

ABBREVIATION NAME: ILCM

ENGINEERING DESCRIPTION: The NTZZ43MB provides the line shelves and drawers for the upper or lower LCMs. Ten (10) line drawers are always provided with the NTZZ43MB. This is to be applied to the NTZZ41JA 'Line Concentrating Equipment'.

REFERENCE DOCUMENTATION: MS6X03AA 00 24

MARKETS: Applicable markets:

Europe
Asia/Pacific

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ43MB EMB2-14-ILCM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 06 25	ECM 619 16	Introduce the ten Line Drawer LCM.
93 10 29	ECM 619 17	Reinstate the NT6X04BB Packfill.
95 01 20	ECM 619 27	EC011-20036, introduce LCM CP NT6X04BC
95 03 08	ECM 619 28	ET 21319 stock list inconsistency with NT6X05BA,
95 04 07	ECM 619 30	ET 67103 correct RUL1 4)
95 05 12	ECM 619 31	Correct CPC code per ET64023.
96 02 09	ECM 619 39	Changes per BB Rat and GMF recommendations. Replaces NTZZ43MA.

The International Line Concentrating Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LCM Common CP International	NT6X04BC		1			AP
Line Drawers	NT6X05BA		5	X+17		AP
Line Circuits	As Req'd			X+17	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2
Line Drawers	NT6X05BA		5	X		AP
Line Circuits	As Req'd			X	note	RUL1
Line Drawer Cutoff Strap	A0384362					RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NT6X51AC CP is necessary to support software package NTX270, New Peripheral Maintenance, from BCS32. Packfill NT6X04AA already deployed do not contain NT6X51AB/NT6X51AC and require conversion to LCM NTZZ43MB to enable operation with NTX270 from BCS32 inclusive. Use NT6X04ZY, Extended LCM Processor Change Kit for this purpose.
- 2) The two lower rows of line card slots form one LSG and the upper two rows of line card slots form the other LSG. Each LSG has 32 line card slots (00-31). Each row within an LSG

has 16 line card slots (i.e. each LD has up to 64 line card slots).

RULES:

- AP 1) When PEC NTZZ43MB is ordered, these items are provided.
- RUL1 1) Refer to Table C-1, Section EMA14-03-000, for the list of line cards that are provisionable on the Line Drawer, their associated provisioning rules and assignment restrictions.
- 2) One Type A Line Card in slot 00 in line subgroup 00 must be provided for each LCM on a dedicated basis for diagnostic/testing purposes when analog ringing is required (i.e. in the absence of analog ringing, this slot is available for subscriber use).
- 3) Provide one (1) NT6X20AA Message Waiting Converter CP in the Line Drawer if there are any NT6X19AA, Line Card Type E in the Line Drawer.
- 4) Provide one (1) NT6X23AA, Power Converter (+48V) CP per line drawer (NT6X05BA) if there are any Type B line cards with +48V (NT6X18AB) and this +48V feature is required.
- 5) For datapath loop testing, one (1) NT6X99AA IBERT Line Card can be provided per LCM equipped with a data line card. Locate this NT6X99AA on slot 1 in line subgroup 00.
- If switch bit error rate testing is required, two (2) NT6X99AA IBERT Line Cards should be provided for each LCM in the office. Locate one (1) NT6X99AA on slot 1 in line subgroup 00 of an LCM and one (1) NT6X99AA on slot 0 in line subgroup 10 of the same LCM (i.e. one (1) NT6X99AA per LCA).
- For more information, refer to Section EMA14-03-000 Table C Line Drawer Provisionable Cards.
- RUL2 1) Provide one (1) Line Drawer Cutoff Strap for each line drawer whose line cards are to be held simultaneously cut-off per Telco requirements.

RINGING GENERATOR (SL100 UK)

NTZZ43CA

RATING: Standard.

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the HIE shelf.

REFERENCE DOCUMENTATION: SLZZ43CA 00 01 PAS

MARKETS: Applicable markets:

Europe

NTZZ43CA EMB2-14-IRG-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07	ECM 605 04	Introduces Int. Ring Generat.(UK)

| The Ringing generator (SL100 UK) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X60AB		2	38	1,5	AP
Desig. Label (NT6X60AB)	P0685015		2	38	1,5	AP

| RULES:

| AP 1) When PEC NTZZ43CA is ordered, these items are provided.

RINGING GENERATOR (CHINA)

NTZZ43DA

RATING: Standard.

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the HIE shelf.

REFERENCE DOCUMENTATION: SLZZ43DA 00 01 PAS

MARKETS: Applicable markets:

Asia/Pacific

NTZZ43DA EMB2-14-IRG-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07	ECM 605 04	Introduces Int. Ring Generat.(China)

| The Ringing generator (China) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X60DA		2	38	1,5	AP
Desig. Label (NT6X60DA)	P0698237		2	38	1,5	AP

| RULES:

| AP 1) When PEC NTZZ43DA is ordered, these items are provided.

RINGING GENERATOR (TURKEY/CEP)

PEC CODE: NTZZ43EB

CPC CODE: B0239092

RATING: Standard.

REPLACES: NTZZ43EA

REPLACED BY: Not Applicable

ABBREVIATION NAME: IRGGEN

ENGINEERING DESCRIPTION: The ringing generator provides the specific type of ringing required by the country. The ringing generator is fully duplicated and resides on the HIE shelf.

REFERENCE DOCUMENTATION: SLZZ43EB 00 01 PAS

MARKETS: Applicable markets:

Europe

ISSUE AUTHOR: NTI: Charles Maynard Dept. 3471 (PPK)

MAIN CONTACT: NTI: Charles Maynard Dept. 3471 (PPK)

NTZZ43EB EMB2-14-IRG-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 07	ECM 605 06	Introduces the NT6X60CA Ringing Generator for Turkey and CEP.

The Ringing generator (Turkey/CEP) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringing Generator CP	NT6X60CA		2	38	1,5	AP
Desig. Label (NT6X60CA)	P0740744		2	38	1,5	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ43EB is ordered, these items are provided.

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RINGING GENERATORS, AUSTRALIA

PEC CODE: NTZZ43CF

CPC CODE: B0241861

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: IRGGEN

ENGINEERING DESCRIPTION: The ringing generator provides the capability for analog ringing. Two ringing generators are provided for reliability.

REFERENCE DOCUMENTATION: SLZZ43CF 00 02

MARKETS: Applicable markets:

Asia/Pacific

ISSUE AUTHOR: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: Mark Sorrell Dept. 3471 (PPK)

NTZZ43CF EMB2-14-IRG-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 31 96 04 19	ECM 605 12 ECM 605 21	Introduce the NTZZ43CF Building Block. Correct the part number of the label per EC 011-20036 & SR RR60938.

The RINGING GENERATORS, AUSTRALIA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ringling Generator, Australia	NT6X60AE		2	38	1,5	AP
Design. Label (NT6X60AE)	P0749008		2	38	1,5	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ43CF is ordered, these items are provided.

INTERNATIONAL REMOTE LINE CONCENTRATING MODULE

PEC CODE: NTZZ41RB

CPC CODE: B0242132

RATING: Standard

REPLACES: NTZZ41RA

REPLACED BY: None

ABBREVIATION NAME: IRLCM

ENGINEERING DESCRIPTION: The IRLCM is a single frame remote concentrating module that can serve up to 640 lines. The IRLCM communicates to the host via up to six PCM-30 links.

REFERENCE DOCUMENTATION: SLZZ41RB 00 01

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ken Clisso Dept. 3471 (PPK)

NTZZ41RB EMB2-14-IRM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 12 09	ECM 605 13	EC 011-20036 adds NT6X04BC, replaces NT6X04BB. Create this new Building Block.
95 03 31	ECM 605 14	ECD 024-93972 Change replaces the NT2X70AE with the NT2X70AF power converter.

The International Remote Line Concentrating Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RLCM Frame	NT6X14AA		1			AP
Universal Framework	NT0X25AH	FW	1			AP
FSP Without Power Dist.	NTZZ16BA	FSP		70		RUL1
FSP With Power Distribution	NTZZ16CA	FSP		70		RUL1
Fault Loc & Order Wire Acc	QPP519A			70	1	RUL2
Fault Loc & Order Wire Acc	QPP519B			70	1	RUL2
Office Repeaters	QRY18			70	2-7	RUL3
Filler Face Plate	NT0X50AJ			70	1-7	RUL4
RMT Maint Mod Shf Assy	NT6X1306		1	56		AP-01
Remote Maint Mod - TURKEY	NTZZ41SA	RMM		56		RUL5
Remote Maint Mod - CEP	NTZZ41TA	RMM		56		RUL5
Remote Maint Mod - UK	NTZZ41KA	RMM		56		RUL5
Remote Maint Mod - China	NTZZ16MA	RMM		56		RUL5
Provisionable Circuit Packs	As Req'd			56	3-16	RUL5
Filler Face Plate	NT0X50AC			56	1,2	RUL5
Filler Face Plate	NT0X50AG			56	17	RUL5
Filler Face Plate	NT0X50AA			56	19	RUL5
Filler Face Plate	NT0X50AE			56	20	RUL5
Filler Face Plate	NT0X50AC			56	3-16	RUL5
Int. RLCM ESA CP Pkg.(China)	NTZZ41UA			56		RUL6
Int. RLCM ESA CP Pkg.(CEP)	NTZZ41VA			56		RUL6
Int. RLCM ESA CP Pkg. (UK)	NTZZ41WA			56		RUL6
Baffle Assembly	NT6X1402		1	51		AP-01
Host I/F Equip Shf Assy	NT6X1108		1	38		AP-01
HIE CP China	NT6X11KA	HIE	1	38		RUL7
HIE CP SL100/UK	NT6X11EB	HIE	1	38		RUL7
# HIE CP Turkey/CEP	NT6X11BB	HIE	1	38		RUL7
HIE CP Turkey/CEP	NT6X11BC	HIE	1	38		RUL7
Ringling Generator CP China	NTZZ43DA		1	38	1,5	RUL8
Ringling Generator SL100/UK	NTZZ43CA		1	38	1,5	RUL8
Ringling Generator Australia	NTZZ43CF		1	38	1,5	RUL8
# Ringling Generator Turkey/CEP	NTZZ43EA		1	38	1,5	RUL8
Ringling Generator Turkey/CEP	NTZZ43EB		1	38	1,5	RUL8
Filler Face Plate	NT0X50AH		2	38	1,5	RUL8
Filler Face Plate	NT0X50AG		1	38	9	AP
# PCM 30 Interface	NT6X27AB			38	21	RUL10
PCM 30 Interface	NT6X27BB			38	21	RUL10
Filler Face Plate	NT0X50AA			38	13-16,	RUL9

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Pwr Converter + & -5V, 12V	NT2X70AF		2	38	21 22, 25	AP
International LCM Common CP	NT6X04BC	ILCM0	1	04		AP
Line Conc. Array Shf Assy	NT6X0401	LCA1	1	21		AP-01
International Line Drawer	NT6X05BA	ILD		21	1-5	RUL11
Line Drawer Filler	NT6X05AX					RUL11
Line Conc. Array Shf Assy	NT6X0401	ILCA0	1	04		AP-01
International Line Drawer	NT6X05BA	ILD		04	1-5	RUL11
Line Drawer Filler	NT6X05AX					RUL11
Line Cards	As Req'd					RUL12
Designation Labels, LSG No.	P0631765		1			AP
Desig. Label for NT2X70AF	P0809960		2	38	22, 25	AP
Desig. Label for NT6X27BB	P0739157			38	21	RUL10

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE P0698943	MD MD	NT2X70AF P0809960

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTZZ41RB is ordered, these items are provided.
- AP-01 1) This PEC is always provided with the NT6X14AA and is shown here for completeness.
- RUL1 1) Provide one (1) NTZZ16CA FSP to provide power distribution to the RLCM frame only. When the RLCM site requires additional frames such as the RME frame, provide one (1) NTZZ16BA FSP instead of the NTZZ16CA. When the NTZZ16BA is provisioned, a PDC frame or equivalent is required.
- RUL2 1) Provide one (1) QPP519 when office repeaters are required in the RLCM and customer requires fault locate feature. Select QPP519 as follows:
- QPP519A - provides jacks for 2 wire telephone or 4 wire headset and permits extension of order-wire for subscriber line operation.
- QPP519B - The QPP519B provides a simple through connection between the order wire pair and the CO switching equipment with jack access for a 2 wire telephone.
- 2) Also provision one (1) QFB127* or QFB128* fault locate filter for each QPP519.

QFB127* - Dual-amplified Type

QFB128* - Single-passive Type

Order the appropriate filter type and frequency per Telco requirements.

* = A 832Hz
B 928Hz
C 1048Hz
D 1206Hz
E 1340Hz
F 1508Hz
G 1722Hz
H 2008Hz
J 2193Hz
K 2413Hz
L 2680Hz
M 3017Hz

- RUL3 1) Equip RLCM with one of the following office repeaters if office repeaters are required in the RLCM: QRY18A, B1, C, D1, F, G1. Each DS-1 line or T1 line requires one office repeater.

QRY18A - powers the line repeaters
(provides DC power to T1 line)
QRY18B1 - provides DC power and does error monitoring
QRY18C - no power
QRY18D1 - no power and has error monitor
QRY18F - provides -130V for the T1 line
QRY18G1 - provides -130V for the T1 line and has error monitor

OFFICE REPEATER	LINE POWERING	FAULT-SIGNAL LOOP BACK
QRY18A	YES	NO
QRY18B1	YES	YES
QRY18C	NO	NO
QRY18D1	NO	YES
QRY18F	YES	NO
QRY18G1	YES	YES

- 2) Association of office repeaters to DS-1 lines are in accordance with the following information:

DS1 Port	CP Position on HIE Shelf	CP in FSP
0	19	2
2		3
4	21	4
5		5
3	20	6
1		7

- RUL4 1) Provide one (1) NT0X50AJ Filler Face Plate for each unequipped slot on the FSP.

- RUL5 1) When the telco requires a standard layout of maintenance and service circuits, provision the following:
- 2) For Turkey, provide one (1) NTZZ41SA International Remote Maintenance Module.
- 3) For CEP, provide one (1) NTZZ41TA International Remote Maintenance Module.

- 4) For UK, provide one (1) NTZZ41KA International Remote Maintenance Module.
- 5) For China, provide one (1) NTZZ16MA International Remote Maintenance Module.
- 6) If a Remote Maintenance Module is not provisioned, provide two (2) NT0X50AC Filler Face Plates in slots 1,2, one (1) NT0X50AG Filler Face Plate in slot 17, one (1) NT0X50AA Filler Face Plate in slot 19 and one (1) NT0X50AE Filler Face Plate in slot 20.
- 7) In addition to the pre-equipped circuit packs, there are two available provisionable slots on the Standard RMM. Refer to Table A section EMB14-01-000 for RMM provisionable circuit packs. NOTE: when the NTZZ16DB RLCM ESA CP Package is provisioned, both these free slots are consumed.
- 8) Provide Filler Face Plate, NT0X50AC in slots 3-16 not equipped with a circuit pack.
- 9) Slots 3-16 are currently wired together to allow operation of DRAM Circuitry in these slots when the DRA software becomes available for remotes. The NT2X10AB/AC, NT2X11AA/AC/AD Line Test Unit(LTU) pair the NT2X10BA, NT2X11BA Multi Line Test Unit (MTU) pair are operational in these slots because of the DRA wiring and therefore are not to be provisioned in slots 13-16. All other applicable RMM CPs are allowed in slots 13-16, however these slots should be reserved whenever possible to allow for future DRAM applications.
- 10) Slots 15-16 are reserved for the NT2X48AB that is required for ESA. This pack is provided as part of NTZZ16DB.
- 11) One NT0X10AA Scan Card is always in the RMM of the first RLCM in a Line-up to provide remote monitoring of the AISLE ALARM. Dedicate two of the 14 scan points on this card for this purpose. If the RLCM is the only frame in the Line-up, then its RMM shall always be provisioned with an NT0X10AA Scan Card.

- RUL6
- 1) Provide one (1) NTZZ41UA ESA CP Package when the Emergency Stand Alone (ESA) feature is required is for the China market.
 - 2) Provide one (1) NTZZ41VA ESA CP Package when the Emergency Stand Alone (ESA) Feature is required for the CEP Market.

- 3) Provide one (1) NTZZ41VA ESA CP Package when the Emergency Stand Alone (ESA) Feature is required for MURCURY.
 - 4) Provide three (3) NT0X50AA Filler Face Plates in slots 14 thru 16 of the HIE shelf when the ESA CP Package is not equipped.
- RUL7
- 1) Provide one (1) NT6X11KA Host Interface Equipment Common CP to equip HIE for China.
 - 2) Provide one (1) NT6X11EB Host Interface Equipment Common CP to equip HIE for SL100/UK.
 - 3) Provide one (1) NT6X11BC Host Interface Equipment Common CP to equip HIE for Turkey/CEP.
- RUL8
- 1) Provide one (1) NTZZ43DA Ringing Generator when analog ringing is required in the office for China.
 - 2) Provide one (1) NTZZ43CA Ringing Generator when analog ringing is required in the office for UK/SL100.
 - 3) Provide one (1) NTZZ43EB Ringing Generator when analog ringing is required in the office for Turkey/CEP.
 - 4) Provide one (1) NTZZ43CF Ringing Generator when analog ringing is required in the office for Australia.
 - 5) Provide two (2) NT0X50AH Filler Face Plates when Ringing Generators are not equipped in the office.
- RUL9
- 1) Provide Filler Face Plates NT0X50AA in slots 13-16, 21 when not equipped with a circuit pack.
- RUL10
- 1) Two (2) PCM 30 Interface CPs are included with the HIE shelf. If host link traffic is sufficiently high to warrant an additional PCM 30 interface, provide one (1) NT6X27BB. Refer to NTP 297-1001-450 Section 450/2, Traffic Criteria and Capacities for link provisioning.
 - 2) Provide one (1) P0739157 Designation Label when the NT6X27BB PCM 30 CP is provided in slot 21.
- RUL11
- 1) Provide up to five (5) Line Drawers NT6X05BA for each shelf. Each line drawer can accommodate sixty-four (64) line cards in two line sub groups (LSGs) on the IRLCM.
 - 2) Provide one (1) NT6X05AX Line Drawer Filler, in any position not occupied by a line drawer.

- RUL12 1) Provide up to sixty-four (64) line cards in two (2) line sub-groups (LSGs) per line drawer on the IRLCM. (Refer to EMA14-03-000 for line card assignment rules.

This ILCM is identical to the host ILCM and utilizes the same line card types.

REMOTE MAINTENANCE MODULE - STANDARD

NTZZ16HA

RATING: Standard. For U.S. applications only.

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The Remote Maintenance Module - Standard for the RLCM contains a standard set of signaling, maintenance, and service circuits. Four slots are available for additional circuits or filler face plates.

The RMM is a single shelf service module that supports maintenance and service circuits.

REFERENCE DOCUMENTATION: SLZZ16HA 00 02
NTZZ16HA REL 01

MARKETS: Applicable markets:

US

NTZZ16HA EMB2-14-RMM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 04	----- ECM 605 05	Previous history not available NT0X50AC Filler Plate in slot 7 of shelf 56 has been removed from the stocklist of the NTZZ16HA. Slot 7 is a provisionable slot.

The Remote Maintenance Module - Standard is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RMM Common CP	NT6X13AB	RMM	1	56		AP
Multi Line Test Unit Analog	NT2X10BA		1	56	3	AP
Multi Line Test Unit Control	NT2X11BA		1	56	4	AP
Signal Distribution	NT2X57AA		1	56	5	AP
Remote Metallic Test Access	NT3X09BA		1	56	6	AP
Misc Scan CP	NT0X10AA		1	56	8	AP
Inc/Out Test Trunk	NT2X90AD		2	56	9,10	AP
Comp Bal Net	NT2X77AA		2	56	9,10	AP
Desig. Label (NT2X10BA)	P0707874		1	56	3	AP
Desig. Label (NT2X11BA)	P0707876		1	56	4	AP
Desig. Label (NT2X57AA)	P0656327		1	56	5	AP
Desig. Label (NT3X09BA)	P0664847		1	56	6	AP
Desig. Label (NT0X10AA)	P0656328		1	56	8	AP
Desig. Label (NT2X90AD)	P0688244		2	56	9,10	AP

NOTES:

RULES:

AP 1) When PEC NTZZ16HA is ordered, these items are provided.

RMM PACKFILL

PEC CODE: NTZZ16SA

CPC CODE: B0246018

RATING: Standard.

REPLACES: NTZZ41KA, NTZZ41SA, NTZZ41TA, and NTZZ16MA

REPLACED BY: Not Applicable

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The Remote Maintenance Module - Standard for the RLCM contains a pre-engineered set of signaling, maintenance, and service circuits for remote subscriber lines RLCM. This mounts on the NTZZ41RA International Remote Line Concentrating Module.

REFERENCE DOCUMENTATION: SLZZ16SA 00 01 PAS

MARKETS: Applicable markets:

Europe
CALA
Asia/Pacific

ISSUE AUTHOR: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: Mark Sorrell Dept. 3471 (PPK)

NTZZ16SA EMB2-14-RMM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 20	ECM 605 20	Initial release. NTZZ16SA replaces BB NTZZ41KA, NTZZ41SA, NTZZ41TA, and NTZZ16MA.

The RMM PACKFILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Multi Line Test Unit Analog	NT4X98BB		1	56	3	AP
Multi Line Test Unit Control	NT4X97AA		1	56	4	AP
Misc. Scan CP	NT0X10AA		2	56	7,9	AP
Signal Distribution	NT2X57AA		2	56	8,10	AP
Metallic Test Access CCT 8x8	NT3X09BA		1	56	5	AP
Inc/Out Test Trunk	NT2X90AD		3	56	6,11,12	AP
-48V SP Batt Supply Cable	NT6X1438		1	56		AP
Desig. Label (NT2X57AA)	P0656327		2	56	8,10	AP
Desig. Label (NT3X09BA)	P0664847		1	56	5	AP
Desig. Label (NT0X10AA)	P0656328		2	56	7,9	AP
Desig. Label (NT2X90AD)	P0688244		3	56	6,11,12	AP SA
Rmt Maintenance Module-CUST	NT6X13BA	RMM	1	56		RUL1
Rmt Maintenance Module-CUST	NT6X13DA	RMM	1	56		RUL2
Rmt Maintenance Module-CUST	NT6X13EA	RMM	1	56		RUL3
Balanced Network	NT2X77AC		3	56	6,11,12	RUL4
Balanced Network	NT2X77AA		3	56	6,11,12	RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTZZ16SA is ordered, these items are provided.
- AP-01 1) This PEC is always provided to the NTZZ16SA and is shown here for completeness.
- RUL1 1) Provide one (1) NT6X13BA Rmt Maintenance Module for China or Turkey.
- RUL2 1) Provide one (1) NT6X13DA Rmt Maintenance Module for the CEP markets.
- RUL3 1) Provide one (1) NT6X13EA Rmt Maintenance Module for UK markets.
- RUL4 1) Provide three (3) NT2X77AC Balanced Network ckt. packs for China markets.
- RUL5 1) Provide three (3) NT2X77AA Balanced Network ckt. packs for Turkey, CEP, or UK markets.

REMOTE MAINTENANCE MODULE - STANDARD

PEC CODE: NTZZ16FB

| CPC CODE: B0249648

| RATING: Standard. For Canadian applications only.

| REPLACES: NTZZ16FA

REPLACED BY: Not Applicable

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The Remote Maintenance Module - Standard for the RLCM contains a standard set of signaling, maintenance, and service circuits. Four slots are available for additional circuits or filler face plates.

The RMM is a single shelf service module that supports maintenance and service circuits.

REFERENCE DOCUMENTATION: SLZZ16FB 00 01

MARKETS: Applicable markets:

Canada

| ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ16FB EMB2-14-RMM-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 09 19	ECM 605 26	Created BB per EC 018-51451. Replaces NTZZ16FA.

The REMOTE MAINTENANCE MODULE - STANDARD is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RMM Common CP	NT6X13AB	RMM	1	56		AP
Multi Line Test Unit Analog	NT2X10BA		1	56	3	AP
Multi Line Test Unit Control	NT2X11BA		1	56	4	AP
Signal Distribution	NT2X57AA		2	56	5,6	AP
Remote Metallic Test Access	NT3X09BA		1	56	7	AP
Misc Scan CP	NT0X10AA		3	56	8,9,10	AP
Inc/Out Test Trunk	NT2X90AD		4	56	11-14	AP
Desig. Label (NT2X10BA)	P0707874		1	56	3	AP
Desig. Label (NT2X11BA)	P0707876		1	56	4	AP
Desig. Label (NT2X57AA)	P0656327		2	56	5,6	AP
Desig. Label (NT3X09BA)	P0664847		1	56	7	AP
Desig. Label (NT0X10AA)	P0656328		3	56	8,9	AP
Desig. Label (NT2X90AD)	P0688244		3	56	10-12	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ16FB is ordered, these items are provided.

REMOTE LINE CONCENTRATING MODULE

PEC CODE: NTZZ16NB

CPC CODE: B0249255

RATING: STD

REPLACES: NTZZ16NA

REPLACED BY: N/A

ABBREVIATION NAME: RLCM

ENGINEERING DESCRIPTION: The RLCM is a single frame remote concentrating module that can serve up to 640 lines. The RLCM communicates to the host via up to six DS-1 links.

REFERENCE DOCUMENTATION: SLZZ16NB 00 01

MARKETS: Applicable markets:

Canada
US
CALA

| ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ16NB EMB2-14-006 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 04 18	ECM 605 24	Per EC 024-97291, EC 011-22123, and EC 028-15577 introduce ISDN Line Drawer provisioning. Initial release. Correct CPC code for NTZZ16NB. Show NTZZ16FA MD'd and replaced by NTZZ16FB per EC 018-51451. Also, update Rule 8, part 6 per SR RR78401.
97 06 27	ECM 605 25	
97 09 19	ECM 605 26	

The Remote Line Concentrating Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RLCM Frame	NT6X14AA		1			AP
Universal Framework	NT0X25AH	FW	1			AP
FSP Without Power Dist.	NTZZ16BA	FSP		70		RUL1
FSP With Power Distribution	NTZZ16CA	FSP		70		RUL1
Fault Loc & Order Wire Acc	QPP519A			70	1	RUL2
Fault Loc & Order Wire Acc	QPP519B			70	1	RUL2
Office Repeaters	QRY18			70	2-7	RUL3
Filler Face Plate	NT0X50AJ			70	1-7	RUL4
RMT Maint Mod Shf Assy	NT6X1306		1	56		AP-01
# Remote Maint Mod - Standard	NTZZ16FA	RMM		56		RUL5
Remote Maint Mod - Canada	NTZZ16FB	RMM		56		RUL5
Remote Maint Mod - Custom	NT6X13AB	RMM		56		RUL5
Remote Maint Mod - US	NTZZ16HA	RMM		56		RUL5
Provisionable Circuit Packs	As Req'd			56	3-14	RUL5
Filler Face Plate	NT0X50AC			56	1, 2	RUL5
Filler Face Plate	NT0X50AG			56	17	RUL5
Filler Face Plate	NT0X50AA			56	19	RUL5
Filler Face Plate	NT0X50AE			56	20	RUL5
Filler Face Plate	NT0X50AC			56	3-16	RUL5
RLCM ESA CP Package	NTZZ16DB			56	3-16	RUL6
				38	14-16	RUL6
Filler Face Plate	NT0X50AA			38	14-16	RUL6
ESA PC Kit	NT6X14WB			38		RUL6
Baffle Assembly	NT6X1402		1	51		AP-01
Host I/F Equip Shf Assy	NT6X1108	HIE	1	38		AP-01
Ringin Generator CP	NT6X60CA		2	38	1, 5	RUL11
Filler Face Plate	NT0X50AG		1	38	9	RUL8
Filler Face Plate	NT0X50AA			38	12, 13,	RUL7
Link Control Card	NT6X73AA		2	38	17, 18	AP
DS-1 Interface CP	NT6X50AA			38	19-21	RUL8
DS-1 Interface CP	NT6X50AB			38	19-21	RUL8
Desig. Label for NT6X50AA	P0626878			38	21	RUL8
Desig. Label for NT6X50AB	P0690976			38	21	RUL8
Filler Face Plate	NT0X50AA			38	21	RUL8
Pwr Converter + & -5V, 12V	NT2X70AF		2	38	22, 25	AP
LCM Common CP	NT6X04AD	LCM0	1	04		RUL9
LCM Common CP	NT6X04AE	LCM0		04		RUL9
LCM Upgrade Kit	NT6X04ZX	LCM0		04		RUL9

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Line Conc. Array Shf Assy	NT6X0401	LCA1	1	21		AP-01
Line Drawer	NT6X05AA	LD		21	1-5	RUL9
ISDN Line Drawer	NT6X05DA	LD		21		RUL9
Line Drawer Filler	NT6X05AX			21		RUL9
Line Conc. Array Shf Assy	NT6X0401	LCA0	1	04		AP-01
Line Drawer	NT6X05AA	LD		04	1-5	RUL9
ISDN Line Drawer	NT6X05DA	LD		04		RUL9
Line Drawer Filler	NT6X05AX			04		RUL9
Line Cards	As Req'd					RUL9
Designation Labels, LSG No.	P0631765		1			RUL9
Desig. Label for NT6X60CA	P0740744		2	38	1, 5	RUL11
Desig. Label for NT2X70AF	P0809960		2	38	22, 25	AP
Desig. Label for "CLLI"	P0711823		1			RUL10

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF
NTZZ16FA	MD	NTZZ16FB

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ16NB is ordered, these items are provided.

AP-01 1) This PEC is always provided to the NT6X14AA and is shown here for completeness.

RUL1 1) Provide one (1) NTZZ16CA FSP to provide power distribution to the RLCM frame only. When the RLCM site requires additional frames such as the RME frame, provide one (1) NTZZ16BA FSP instead of the NTZZ16CA. When the NTZZ16BA is provisioned, a PDC frame or equivalent is required.

RUL2 1) Provide one (1) QPP519 when office repeaters are required in the RLCM and customer requires fault locate feature. Select QPP519 as follows:

QPP519A - provides jacks for 2 wire telephone or 4 wire headset and permits extension of order-wire for subscriber line operation.

QPP519B - The QPP519B provides a simple through connection between the order wire pair and the CO switching equipment with jack access for a 2 wire telephone.

2) Also provision one (1) QFB127* or QFB128* fault locate filter for each QPP519.

QFB127* - Dual-amplified Type

QFB128* - Single-passive Type

Order the appropriate filter type and frequency per Telco requirements.

* = A 832Hz
B 928Hz
C 1048Hz
D 1206Hz
E 1340Hz
F 1508Hz
G 1722Hz
H 2008Hz
J 2193Hz
K 2413Hz
L 2680Hz
M 3017Hz

RUL3 1) Equip RLCM with one of the following office repeaters if office repeaters are required in the RLCM: QRY18A, B1, C, D1, F, G1. Each DS-1 line or T1 line requires one office repeater.

QRY18A - powers the line repeaters
 (provides DC power to T1 line)
 QRY18B1 - provides DC power and does error monitoring
 QRY18C - no power
 QRY18D1 - no power and has error monitor
 QRY18F - provides -130V for the T1 line
 QRY18G1 - provides -130V for the T1 line and has error
 monitor

OFFICE REPEATER	LINE POWERING	FAULT-SIGNAL LOOPBACK
QRY18A	YES	NO
QRY18B1	YES	YES
QRY18C	NO	NO
QRY18D1	NO	YES
QRY18F	YES	NO
QRY18G1	YES	YES

- 2) Association of office repeaters to DS-1 lines are in accordance with the following information:

DS1 Port	CP Position on HIE Shelf	CP in FSP
0	19	2
2		3
4	21	4
5		5
3	20	6
1		7

RUL4 1) Provide one (1) NT0X50AJ Filler Face Plate for each unequipped slot on the FSP.

RUL5 1) When the telco requires a standard layout of maintenance and service circuits, provision one (1) NTZZ16FB Remote Maintenance Module for Canadian applications. Provide the NTZZ16HA Remote Maintenance Module for US applications. In addition to the pre-equipped circuit packs, there are two available provisionable slots on the Standard RMM. Refer to Table A section EMB14-01-000 for RMM provisionable circuit packs. NOTE: when the NTZZ16DB RLCM ESA CP Package is provisioned, both these free slots are consumed.

- 2) When the telco requires fully customized maintenance and service circuits, provision one (1) NT6X13AB Remote Maintenance Module - Custom. There are 14 available provisionable slots on the Custom RMM. Refer to Table A section EMB14-01-000 for RMM provisionable circuit packs.

- 3) Provide Filler Face Plate, NT0X50AC in slots 3-16 not equipped with a circuit pack.
 - 4) Slots 15-16 are reserved for the NT2X48AB that is required for ESA. This pack is provided as part of NTZZ16DB.
 - 5) One NT0X10AA Scan Card is always in the RMM of the first RLCM in a Line-up to provide remote monitoring of the AISLE ALARM. Dedicate two of the 14 scan points on this card for this purpose. If the RLCM is the only frame in the Line-up, then its RMM shall always be provisioned with an NT0X10AA Scan Card.
 - 6) If a Remote Maintenance Module is not provisioned, provide two (2) NT0X50AC Filler Face Plates in slots 1,2, one (1) NT0X50AG Filler Face Plate in slot 17, one (1) NT0X50AA Filler Face Plate in slot 19 and one (1) NT0X50AE Filler Face Plate in slot 20.
- RUL6
- 1) Provide one NTZZ16DB RLCM ESA CP Package when the Emergency Stand Alone (ESA) feature is required in BCS-33 and above. Mounting positions of the circuit packs in section EMB2-14-ESA-2 (NTZZ16DB) are NT6X47AC (pos. 14 shelf 38), NT6X45AF (pos. 15 shelf 38), NT6X75AA (pos. 16 shelf 38), and NT2X48AB (pos. 3-16 shelf 56). Any one of the RMM pack fills is required when ESA is provided.
 - 2) Provide three (3) NT0X50AA Filler Face Plates in slots 14 thru 16 of the HIE shelf when NTZZ16DB ESA CP Package is not equipped.
 - 3) For Canadian applications only, when an existing RLCM is being modified in the field to add in the ESA feature, provide one (1) Product Change Kit NT6X14WB.
- RUL7
- 1) Provide one (1) NT0X50AA Filler Face Plate in positions shown when not equipped with a circuit pack.
- RUL8
- 1) Provide two (2) NT6X50AA or NT6X50AB DS-1 Interface Circuit Packs when communication with the host office is via DS-1 links. Two DS-1 Interface CPs will terminate up to four DS-1 links. Provide two (2) P0690976 when the NT6X50AB is provided; the NT6X50AA are already identified on the designation strip for the HIE Common CP.
 - 2) Provide one (1) additional NT6X50AA or NT6X50AB DS-1 Interface CP when additional DS-1 links are required to satisfy traffic requirements. Provide one (1) corresponding design

nation label when an additional DS-1 Interface CP is provided.

- 3) Either NT6X50AA or NT6X50AB DS-1 Interface CPs may be used at the customer's discretion, however NT6X50ABs are required for ISDN line drawer. All the DS-1 Interface CPs in an RLCM must be the same part number. The DS-1 Interface CPs in an RLCM must be the same part number, either NT6X50AA or NT6X50AB, as the DS-1 Interface CPs which terminate the links to that RLCM in the host LGC/LTC/RCC module.

However, the DS-1 I/F circuit packs can be either NT6X50AA or NT6X50AB when linked to a RSC Sonet equipped with NTMX81AA Dual DS-1 Packlet circuit packs. (All the DS-1 I/F packs in an RLCM must be the same part number, either NT6X50AA or NT6X50AB).

- 4) The LCM Common CP in both shelves must be NT6X04AB or higher for RLCM, or NT6X04BB or higher for IRLCM, in order to provide the LCM processor capacity required when the NT6X50AB is used.
- 5) Provide one (1) NT0X50AA Filler Face Plate in slot 21 of the HIE shelf when not equipped with a circuit pack.
- 6) Provide one (1) NT0X50AG Filler Face Plate in slot 9 of the HIE shelf when not equipped with a circuit pack. The NT0X50AG will fill three slots (9-11) on an HIE shelf, instead of the normal two slots, due to the HIE shelf being narrower. Do not assign any other CP in slot 11 of the HIE shelf when the NT0X50AG is located in positions 9 and 10.
- 7) For ISDN applications, NT6X50AAs must be replaced with NT6X50ABs in both remote and host equipment. Provide designation strips for each NT6X50AB provisioned.

- RUL9
- 1) Provide up to five (5) Line Drawers NT6X05AA for each shelf.
 - 2) Provide up to sixty-four (64) line cards in two (2) line sub-groups (LSGs) per line drawer on the RLCM. (Refer to EMA14-03-000 for line card assignment rules.

This LCM is identical to the host LCM and utilizes the same line card types.

- 3) Provide one (1) NT6X05AX Line Drawer Filler, in any position not occupied by a line drawer.
 - 4) Provide one (1) P0631765 LSG Designation labels when providing line drawers.
 - 5) Two (2) of the ten line drawers for each LCM may be NT6X05DA ISDN Line Drawers, one per shelf. Use of an NT6X05DA ISDN Line Drawer requires use of NT6X04AE and NT6X50ABs for clear channel capability.
 - 6) For ISDN applications (NT6X05DA), provide (1) NT6X04ZX LCM Processor CP Kit. This kit upgrades the LCM processor and labels to NT6X51DAs required for clear channel capability. Pack fill becomes NT6X04AE. Use of the NT6X04AE requires the use of NT6X50ABs in both the host and remote equipment.
 - 7) Only 1 ILD can be defined in each LCA (Line Concentrating Array). ISDN Line Drawer can not be applied to positions 0 or 10. Preferred positions for locating the ISDN Line Drawer is 8 or 18. This means that if the ILD drawer number of the first ILD is within the range 2 - 8, the next ILD to be defined in this LCM will have its drawer number within the range 12 - 18. This limitation exists in order to permit an optimal heat dispersion in the LCM.
- RUL10 1) Provide one (1) P0711823 CLLI Label per US office only.
- RUL11 1) Provide two (2) NT6X60CA Ringing Generators and designation labels when analog ringing is required in RLCMs and IRLCMs.

CUSTOM REMOTE MAINTENANCE MODULE

NTZZ12CC

RATING: STANDARD. Replaces NTZZ12CB

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The Building Block Remote Maintenance Module (RMM) contains the RMM card cage. However, signaling, maintenance, and service circuits must be provisioned as required and/or filler face plates for unequipped slots.

REFERENCE DOCUMENTATION: SLZZ12CC 00 01
NTZZ12CC REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ12CC EMB2-15-RMC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 10 28	ECM 618 05	ECD 011-15507 Replace NT6X10AB with NT6X10AH, and remove NT6X1025 Cable. implemented in BB-Engr. as a replacement for the PEC NTZZ12CC.

The Custom Remote Maintenance Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RMM Card Cage	NT6X10AH			65		AP
Misc Scanner Cp	NT0X10AA		1	65	10	AP

FLAGS:

NOTES: 1) Refer to the RCE Frame for detailed provisioning rules.

RULES:

AP 1) When PEC NTZZ12CC is ordered, these items are provided.

REMOTE MAINTENANCE MODULE (RMM)

NTZZ12BB

RATING: STANDARD Replaces NTZZ12BA and NTZZ12FA

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The Building Block Remote Maintenance Module NTZZ12BB contains a standard set of Signaling, maintenance, and service circuits. The RMM is a single shelf service module that supports maintenance and service circuits. It mounts on the Remote Controller Equipment (RCE) frame in shelf positions 51 or 65.

REFERENCE DOCUMENTATION: SLZZ12BB 00 02
NTZZ12BB REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ12BB EMB2-15-RMM-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 10 28	----- ECM 618 05	Previous history not available Remove NT6X1435 per ECD 011-15507

The Remote Maintenance Module (RMM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Remote Mtce Mod Comm Cp	NT6X13AB		1	xx		AP
\$ RMM Cable Assy MTU Pwr	NT6X1435		1	xx		AP
Designation Strip (NT6X13AB)	P0653639		1	xx		AP-02
TM Group Codec CP	NT2X59AA		1	xx	01	AP-02
RMM Control Card CP	NT6X74AB		1	xx	02	AP-02
Filler Face Plate	NT0X50AC		1	xx	03	AP
Inc/Og Test Trunk CP	NT2X90AD		5	xx	04,05, 07,09,13	AP
Comprise Bal Netwk 9000hm	NT2X77AA		5	xx	04R, 05R,07R, 09R,13R	AP
Misc Scanner Cp	NT0X10AA		2	xx	06,10	AP
8X8 Metallic Test Access CP	NT3X09BA		2	xx	08,15	AP
Multi-Line Test Unit	NT2X10BA		1	xx	11	AP
Multi-Line Test Unit Cntlr	NT2X11BA		1	xx	12	AP
Signal Distributor CP	NT2X57AA		2	xx	14,16	AP
Multi O/P Pwr Converter	NT2X09AA		1	xx	17	AP-02
Filler Face Plate .875	NT0X50AA		1	xx	19	AP-02
Power Converter Comm Feat.	NT2X06AB		1	xx	20	AP-02

FLAGS:

Replaced NT6X10AB with NT6X10AH causing NTZZ12BB to change
NT6X1435 - From AP to Not Required.

NOTES:

1) xx may be either shelf position 51 or 65 when mounted in the RCE frame.

RULES:

AP 1) When PEC NTZZ12BB is ordered, these items are provided.

ap-02 When PEC NT6X13AB is provided these items are always provided.
They are shown here for completeness.

APPLICATION PROCESSING UNIT

PEC CODE: NTZZ44AA

CPC CODE: B0232997

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: APU

ENGINEERING DESCRIPTION: The APU is an Application Processor with a dual operating system, SOS (Support Operating System) and SuperNode UNIX (SNIX). It is processing resource used to augment the SuperNode CM processor. The APU processor may be used to relieve the SuperNode CM of processing load in suitable applications.

REFERENCE DOCUMENTATION: ADAS Product Spec.
MS(for LPP)
MS(for ADAS/ISN)

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: James Marsden Dept. 3471 (PPK)

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NTZZ44AA EMB2-16-APU-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 10 04	ECM 682 01	Initial issue

The Application Processing Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F-bus I/F	NTEX22BB	PFI	1	X	YF	AP
24Mb Memory CP	NT9X14DB		1	X	YF+1	AP
Filler PB	NT9X19BA		1	X	YR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) X = 00,13 or 26.

2) Y = 08,10,12,14,16,18,20,22,24,26,28 or 30

RULES:

AP 1) When PEC NTZZ44AA is ordered, these items are provided.

CCS7 32MEG LIU (V.35) - ISG

PEC CODE: NTZZ30CP

CPC CODE: B0248529

RATING: Limited

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ30CP provides one Signaling Data Link for interface to other SS7 offices. Each LIU7 provides one V.35 link with 32 Meg of memory. Use the NTZZ30CP for offices which require ISG. Initial use for STP application.

REFERENCE DOCUMENTATION: SLZZ30CP 00 01
NTZZ30CP REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

| ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30CP EMB2-16-ASU-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 30	ECM 620 34	Introduce NTZZ30CP with 32MEG memory.

The CCS7 32MEG LIU (V.35) - ISG is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22CA		1	XX	YYF	AP
STP Signaling Terminal I/F	NT9X76AA		1	XX	YYF+1	AP
V.35 I/F PB	NT9X77AB		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0859948		1	XX	YYF	AP
Desig. Label NT9X77AB	P0804444		1	XX	YYR+1	AP
V.35 Cable Assembly	NT9X0193		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30CP can be assigned to shelf mounting positions XX = 26, 13, 00 in LPP and XX = 26, 13 in FLIS application. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30CP is ordered, these items are provided.

CCS7 32MEG LIU (FAULT-SEC.)

PEC CODE: NTZZ30TC

CPC CODE: B0248513

RATING: Limited

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ30TC provides one Signaling Data Link for interface to other SS7 offices. Each LIU7 provides one DS0A link with 32Meg of memory, and supports the use of Link Fault Sectionalization software. Enhanced maintenance is available with the use of this type DS0A link. Initial use for STP application.

REFERENCE DOCUMENTATION: SLZZ30TC 00 01
NTZZ30TC REL 00

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

| ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30TC EMB2-16-ASU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 30	ECM 620 34	Introduce NTZZ30TC with 32MEG memory.

The CCS7 32Meg LIU (FAULT-SEC.) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22CA		1	XX	YYF	AP
STP Signaling Terminal I/F	NT9X76AA		1	XX	YYF+1	AP
E-DS0A I/F PB	NT9X78DA		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0859948		1	XX	YYF	AP
Desig. Label NT9X78DA	P0803615		1	XX	YYR+1	AP
DS0A Cable Assembly	NT9X0193		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30TC can be assigned to shelf mounting positions XX = 26, 13, 00. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30TC is ordered, these items are provided.

CCS7 32MEG E-LIU (CBI)

PEC CODE: NTZZ44DC

CPC CODE: B0248530

RATING: Limited

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ44DC provides one Signaling Data Link for interface to other SS7 offices. Each LIU7 provides one Channelized Bus Interface (CBI) access with 32Meg of memory. There are no cables required for the NTEX26AA Channel Bus Interface paddleboard.

REFERENCE DOCUMENTATION: SLZZ44DC 00 01
NTZZ44DC REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44DC EMB2-16-ASU-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 30	ECM 620 34	Introduce NTZZ30DC with 32MEG memory.
97 05 08	ECM 620 35	Include Wireless in the market section

The CCS7 32Meg E-LIU (CBI) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22CA		1	XX	YYF	AP
STP Signaling Terminal I/F	NT9X76AA		1	XX	YYF+1	AP
Channel Access Bus I/F PB	NTEX26AA		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0859948		1	XX	YYF	AP
Desig. Label NTEX26AA	P0733875		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ44DC can be assigned to shelf mounting positions
XX = 26, 13, 00.
The slot positions are defined by
YY = 08, 10, 12, 14, 16, 22, 24, 26, 28, or 30.

F = Front of shelf, R = Rear of shelf.

Note: Slot positions 18 and 20 are taken up by the NIU plane 0 and plane 1 when Channelized Access is provided on an LIS shelf.

RULES:

- AP 1) When PEC NTZZ44DC is ordered, these items are provided.

ETHERNET I/F UNIT WITH 32MEG ASU PROCESSOR

PEC CODE: NTZZ30ED

CPC CODE: B0248512

RATING: Limited

REPLACES: Not Applicable

REPLACED BY: Not Applicable

| ABBREVIATION NAME: EIU

ENGINEERING DESCRIPTION: The NTZZ30ED provides one Ethernet Interface Unit for connection of an Ethernet LAN through the LIM. Initial use for CDPD application.

REFERENCE DOCUMENTATION: SLZZ30ED 00 01
NTZZ30ED REL 01

MARKETS: Applicable markets:
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30ED EMB2-16-ASU-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 30	ECM 620 34	Introduce NTZZ30ED for MTX application

The ETHERNET I/F UNIT WITH 32MEG ASU PROCESSOR is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22CA		1	XX	YYF	AP
Ethernet I/F	NT9X84AA		1	XX	YYF+1	AP
Ethernet I/F PB	NT9X85AA		1	XX	YYR+1	AP
EIU (2 Slot) ID Label	P0859950		1	XX	YYF	AP
Desig. Label NT9X85AA	P0711661		1	XX	YYR+1	AP
DS0A Cable Assembly	NT9X0190		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30ED can be assigned to shelf mounting positions XX = 26, 13, 00. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30ED is ordered, these items are provided.

NIU WITH 32MEG ASU PROCESSOR

PEC CODE: NTZZ30MB

CPC CODE: B0248511

RATING: Limited

REPLACES: Not Applicable

REPLACED BY: Not Applicable

| ABBREVIATION NAME: NIU

ENGINEERING DESCRIPTION: The NTZZ30MB Building Block contains the equipment required to provision one complete NIU. Initial use for CDPD application.

REFERENCE DOCUMENTATION: SLZZ30MB 00 01
NTZZ30MB REL 01MARKETS: Applicable markets:
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30MB EMB2-16-ASU-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 30	ECM 620 34	Introduce NTZZ30MB for MTX application

The NIU WITH 32MEG ASU PROCESSOR is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Integrated Proc & FBUS I/F	NTEX22CA		1	X	YF	AP
Channel Bus Control Unit:0	NTEX25AA		1	X	Y+1F	AP
DS30 Link I/F Paddleboard	NTEX28AA		1	X	Y+1R	AP
Inter CBC Cable	NT9X7021		1	X	Y+1R	AP
DS30 Cable To Bulkhead	NT9X7020		2	X	Y+1R	AP
Design Label (NIU Unit:0)	P0859952		1	X	YF	AP
Design Label (NTEX28AA)	P0733137		1	X	Y+1R	AP
Integrated Proc & FBUS I/F	NTEX22CA		1	X	Y+2F	AP
Channel Bus Control Unit:1	NTEX25BA		1	X	Y+3F	AP
DS30 Link I/F Paddleboard	NTEX28AA		1	X	Y+3R	AP
Inter CBC Cable	NT9X7021		1	X	Y+3R	AP
DS30 Cable To Bulkhead	NT9X7020		2	X	Y+3R	AP
Design Label (NIU Unit:1)	P0859953		1	X	Y+2F	AP
Design Label (NTEX28AA)	P0733137		1	X	Y+3R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30MB can be assigned to shelf mounting positions X = 26, 13, 00. The slot positions are defined by Y = 18. F = Front of shelf, R = Rear of shelf.

RULES:

AP 1) When PEC NTZZ30MB is ordered, these items are provided.

XLIU WITH 32MEG ASU PROCESSOR

PEC CODE: NTZZ30NB

CPC CODE: B0248510

RATING: Limited

REPLACES: Not Applicable

REPLACED BY: Not Applicable

| ABBREVIATION NAME: XLIU

ENGINEERING DESCRIPTION: The NTZZ30NB Building Block contains the equipment required to provision a complete XLIU. Initial use for CDPD application.

REFERENCE DOCUMENTATION: SLZZ30NB 00 01
NTZZ30NB REL 01MARKETS: Applicable markets:
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30NB EMB2-16-ASU-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 30	ECM 620 34	Introduce NTZZ30NB.

The XLIU WITH 32MEG ASU PROCESSOR is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Integrated Proc & FBUS I/F	NTEX22CA		1	X	YF	AP
HDLC Frame Processor	NTFX10AA		1	X	Y+1F	AP
CBUS Interface Paddleboard	NTFX09AA		1	X	Y+1R	AP
Design Label (XLIU)	P0859986		1	X	YF	AP
Design Label (NTFX09AA)	P0732784		1	X	Y+1R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30NB can be assigned to shelf mounting positions X = 26, 13, 00. The slot positions are defined by Y = 8,10,12,14,16,22,24,26,28,30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30NB is ordered, these items are provided.

HIGH SPEED LINK (HSL) UNIT

PEC CODE: NTZZ30RA

CPC CODE: B0235184

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: HSL

ENGINEERING DESCRIPTION: The NTZZ30RA provides high speed Link for interface to other SS7 offices.

REFERENCE DOCUMENTATION: SLZZ30RA 00 01
NTZZ30RA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30RA EMB2-16-ASU-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 09 15	ECM 721 01	Introduce NTZZ30RA section for HLIU.

The High Speed Link (HSL) Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22CA		1	XX	YYF	AP
High Speed Sig. Terminal I/F	NTEX76AA		1	XX	YYF+1	AP
DS-1 PB	NTEX78AA		1	XX	YYR+1	AP
HLIU (2 Slot) ID Label	P0869687		1	XX	YYF	AP
Desig. Label NTEX78AA	P0869686		1	XX	YYR+1	AP
IPF Proc and F/Bus I/F	NTEX22CA		1	XX	YYF-2	AP
Desig. Label NTEX22CA	P0837660		1	XX	YYF-2	AP
Filler Face Plate	NT9X19AA		1	XX	YYF-1	AP
PB Filler Face Plate	NT9X19BA		1	XX	YYR-2,	AP
PB Filler Face Plate	NT9X19BA		1	XX	YYR-1	AP
HLIU Cable Assembly	NT9X0191		2	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30RA can be assigned to shelf mounting positions
XX = 26, 13, 00.
The slot positions are defined by
YY = 10, 12, 14, 16, 22, 24, 26, 28, or 30.

F = Front of shelf, R = Rear of shelf.

RULES:

AP 1) When PEC NTZZ30RA is ordered, these items are provided.

CABINETIZED BULKHEAD AND CABLE ASSEMBLY

PEC CODE: NTZZ44JA

CPC CODE: B0237721

| RATING: STD

REPLACES:

REPLACED BY:

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ44JA provides two LMS DS-30 Cable assembly and the left and right bulkheads for a cabinetized office.

REFERENCE DOCUMENTATION: SLZZ44JA 00 01
NTZZ44JA REL 01
MS9X70BB 01 07

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Robert Leydig Dept. 3471 (PPK)

MAIN CONTACT: NTI: Robert Leydig Dept. 3471 (PPK)

NTZZ44JA EMB2-16-BLK-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 12 08	ECM 620 08	Introduce new bulkheads and cables Manufactured Discontinued. Included with NTZZ44CM/44KM/44FM/44GM.
93 06 04	ECM 620 12	
95 03 14	ECM 620 25	MD non-filtered bulkhead per MFG cost improvement. Bulkhead AP in NT9X70BB. Previously MD'd in error;Now standard.
95 04 04	ECM 620 26	

The Cabinetized Bulkhead and cable assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LMS DS-30 Cable Assembly	NT9X0100		4	39		AP
LMS DS-30 Cable Assembly	NT9X0107		2	39		AP
Non-Fltd DS-30 Blkhd (left)	NT9X6569		1	39		AP
Non-Fltd DS-30 Blkhd (right)	NT9X6570		1	39		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ44JA is ordered, these items are provided.

NON CABINETIZED BULKHEAD AND CABLE ASSEMBLY

PEC CODE: NTZZ44HA

CPC CODE: B0237722

RATING: STD

REPLACES:

REPLACED BY:

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ44HA provides one LMS DS-30 Cable assembly and the left and right bulkheads for a non-cabinetized office.

REFERENCE DOCUMENTATION: SLZZ44HA 00 01
NTZZ44HA REL 01
MS9X70BB 01 07

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Robert Leydig Dept. 3471 (PPK)

NTZZ44HA EMB2-16-BLK-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 12 08	ECM 620 08	Introduce new bulkheads and cables
93 06 04	ECM 620 12	Manufactured Discontinued. Included with NTZZ44CM/44KM/44FM/44GM.
93 09 17	ECM 620 13	NTZZ44HA is now Standard.
95 03 14	ECM 620 25	NTZZ44HA is now MD. Items are AP in NT9X70BB.
95 04 04	ECM 620 26	Previously MD'd in error;Now standard.
97 05 08	ECM 620 35	Include Wireless in the market section

The Non Cabinetized Bulkhead and cable assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LMS DS-30 Cable Assembly	NT9X0145		4	39		AP
Filtered DS-30 Blkhd (left)	NT9X6509		1	39		AP
Filtered DS-30 Blkhd (right)	NT9X6536		1	39		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ44HA is ordered, these items are provided.

CABLE KIT (CABINETIZED)

NTZZ30QB

RATING: LTD

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ30QB Building Block contains Horizontal Cable Kit, Power and Return Cable, and Terminal Block Designation Label for use when an enhanced 42" LIM cabinet is provided in a DMS-100 Cabinetized lineup.

REFERENCE DOCUMENTATION: SLZZ30QB 00 01

The NTZZ30QB is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Horizontal Pwr Cabling Kit	NT9X9531		1			AP
Power and Return Cable Assy	NTRX1670		20			AP
Terminal Block Desig Strips	P0732510		1			AP

RULES:

AP 1) When PEC NTZZ30QB is ordered, these items are provided.

C01/C02 TO AISLE ALM1/2 CABLE ASSEMBLY

NTZZ46FA

RATING: Standard.

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This Building Block provides the cable assembly and required hardware for equipping the Cabinetized RSC for external aisle alarm interface. This equipment is to be assembled per ADMX89AA.

REFERENCE DOCUMENTATION: MSMX89AA 00 07

MARKETS: Applicable markets:

US
Canada
CALA

NTZZ46FA EMB2-16-CAB-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 03 12	ECM 617 07	Introduce NTZZ46FA Building Block.

ISSUE AUTHOR NTI: WILLIAM STANLEY Dept. 3471 (PPK)

MAIN CONTACT NTI: WILLIAM STANLEY Dept. 3471 (PPK)

The C01/C02 to Aisle ALM1/2 Cable Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
C01/C02 to ALM1/2 Cable	NTMX8950		1	61		AP
Filter Adapter	A0336653		2			AP
D-Sub Connector Screws	A0317136		8			AP
Washers	P0148330		8			AP

FLAGS:

NOTES:

- 1) Assemble equipment per ADMX89AA.

RULES:

- AP 1) When PEC NTZZ46FA is ordered, these items are provided.

BAMD ALARM/POWER CABLE ASSEMBLY

NTZZ46GA

RATING: Standard.

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This Building Block provides the cable assembly and required hardware for equipping the Cabinetized RSC for external powering of an Alarm Control and Display Panel. This equipment is to be assembled per ADMX89AA.

REFERENCE DOCUMENTATION: MSMX89AA 00 07

MARKETS: Applicable markets:

US
Canada
CALA

NTZZ46GA EMB2-16-CAB-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 03 12	ECM 617 07	Introduce NTZZ46GA Building Block.

ISSUE AUTHOR NTI: WILLIAM STANLEY Dept. 3471 (PPK)

MAIN CONTACT NTI: WILLIAM STANLEY Dept. 3471 (PPK)

The BAMD Alarm/Power Cable Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
BAMD Alarm/Power Cable	NTMX8998		1	61		AP
D-Sub Filter Connector	A0336796		1			AP
D-Sub Connector Screws	A0317136		2			AP
D-Sub Connector Retainers	A0279319		2			AP
Washers	P0148330		4			AP

FLAGS:

NOTES:

- 1) Assemble equipment per ADMX89AA.

RULES:

- AP 1) When PEC NTZZ46GA is ordered, these items are provided.

DMS-BUS SYSTEM CLOCK

PEC CODE: NTZZ44MP

CPC CODE: B0246021

| RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NT9X53 series of clock cards provide the system and subsystem clocks and frame pulses for Local Message Switch (LMS) of the LPP. This Functional Block provides two of NT9X53AA Clock CPs.

REFERENCE DOCUMENTATION: MS9X70BB 01 20

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44MP EMB2-16-CLK-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 22	ECM 620 31	New Functional Block, therefore new Engineering Manual Section.

The DMS-BUS SYSTEM CLOCK is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Message Switch Clock CP	NT9X53AA		1	X	YF	AP
Message Switch Clock CP	NT9X53AA		1	X	(Y+3)F	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf mounting positions X = 39 for LPP and SNSE.
- 2) CP mounting position Y = 18.

RULES:

- AP 1) When PEC NTZZ44MP is ordered, these items are provided.

ENHANCED DMS-BUS SYSTEM CLOCK

PEC CODE: NTZZ44NP

CPC CODE: B0246020

| RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NT9X53 series of clock cards provide the system and subsystem clocks and frame pulses for Local Message Switch (LMS) of the LPP. This Functional Block provides two of NT9X53AD Clock CPs.

REFERENCE DOCUMENTATION: MS9X70BB 01 20

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44NP EMB2-16-CLK-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 22	ECM 620 31	New Functional Block, therefore new Engineering Manual Section.

The ENHANCED DMS-BUS SYSTEM CLOCK is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS-BUS System Clock CP	NT9X53AD		1	X	YF	AP
DMS-BUS System Clock CP	NT9X53AD		1	X	(Y+3)F	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf mounting positions X = 39 for LPP and SNSE.
- 2) CP mounting position Y = 18F
- 3) It should be noted that the CSP and STP software release dates are different. G2 for CSP05 is projected for 4Q/95 while G2 for STP03 is forecast for 2Q/96.
NOTE: NT9X53AD can not be deployed on STPs prior to STP03 G2.

The following table gives a summary of the rollout of NT9X53AD clock application on a CSP or STP basis.

Platform	Clock Cofig./ Clock	CSP01-CSP04	CSP05	STP03
non-STP	Remote Office/3	NO	YES	N/A
STP	Remote Office/3	N/A	N/A	YES*

YES means supported in this S/W release.

No means NOT supported in this S/W release.

* Supported but requires activation.

RULES:

- AP 1) When PEC NTZZ44NP is ordered, these items are provided.

POWER CONVERTER (48V)

PEC CODE: NTZZ44NA

CPC CODE: B0241296

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ44NA provides (-48V) Power Converters for the Link Interface Shelves.

REFERENCE DOCUMENTATION: SLZZ44NA 00 01
NTZZ44NA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44NA EMB2-16-CNV-48V CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
94 08 03	ECM 620 19	Introduce NTZZ44NA (-48V) Power Converters for LIS Shelves.
96 03 22	ECM 620 31	Retire this section.

The Power Converter (-48V) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
+5V Power Converter CP	NT9X30AA		6	00,13, 26	4F,36F	AP
STP Power Filler CP	NT9X19EA		6	00,13, 26	1F,33F	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ44NA is ordered, these items are provided.

16MHZ, 16MEG DRAM PROCESSOR WITH RTIF

PEC CODE: NTZZ44PR

CPC CODE: B0246104

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ44PR includes 16MB of DRAM for the LMS which is adequate for all applications. It also includes the RTIF.

REFERENCE DOCUMENTATION: MS9X70BB 01 20

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44PR EMB2-16-CPU-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 22	ECM 620 31	New Functional Block, therefore new Engineering Manual Section.
97 05 08	ECM 620 35	Include Wireless in the market section

The 16MHZ, 16MEG DRAM PROCESSOR WITH RTIF is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPU 16 MHZ CP	NT9X13DD		2	39	17F,22F	AP
Rem Term Intf	NT9X26AB		2	39	17R,22R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) FOR CSP03 AND ABOVE:

* 16 Meg memory is MANDATORY on all LMS loads.
This is achievable by provisioning NTZZ44PR Functional Block.

RULES:

AP 1) When PEC NTZZ44PR is ordered, these items are provided.

ETHERNET I/F UNIT FOR BCS34 AND ABOVE.

PEC CODE: NTZZ30EC

CPC CODE: B0238617

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ30EC provides one Ethernet Interface Unit for connection of an Ethernet LAN through the LIM.

REFERENCE DOCUMENTATION: SLZZ30EC 00 01
NTZZ30EC REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30EC EMB2-16-EIU-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 06	ECM 620 11	Introduce NTZZ30EC.
97 05 08	ECM 620 35	Include Wireless in the market section

The Ethernet I/F Unit for BCS34 and Above. is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22BB		1	XX	YYF	AP
Ethernet I/F	NT9X84AA		1	XX	YYF+1	AP
Ethernet I/F PB	NT9X85AA		1	XX	YYR+1	AP
EIU (2 Slot) ID Label	P0738387		1	XX	YYF	AP
Desig. Label NT9X85AA	P0711661		1	XX	YYR+1	AP
DS0A Cable Assembly	NT9X0190		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30EC can be assigned to shelf mounting positions XX = 26, 13, 00. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30EC is ordered, these items are provided.

ENHANCED LINK PERIPHERAL PROCESSOR(ELPP) CABINET

PEC CODE: NTZZ49AA

CPC CODE: B0240533

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: LIM

ENGINEERING DESCRIPTION: The ELPP cabinet is intended to eliminate the capacity bottleneck imposed by the current DS30 MS-LMS link interface. The LIS shelf in this cabinet can house the High Speed Link Interface Unit (HLIU) and receive DS-1 signal. The NTZZ49AA has the capability of housing Application Specific Units (ASUs) such as DS0A, V.35 and HLIU. This Functional Block is NOT equipped with Cooling units, Frame Supervisory Panel, Power Converters. The NTZZ10CU titled 'C42 FSP AND COOLING UNIT(-48V)' will be used across all C42 cabinets for markets requiring -48V application. The NTZZ10CW titled 'C42 FSP AND COOLING UNIT(-60V)' will be used across all C42 cabinets for markets requiring -60V application. Refer to this section carefully to find out the 'Always Provided (AP)' and the Provisionable items to this Functional Block.

REFERENCE DOCUMENTATION: SLZZ49AA 00 01
NTZZ49AA REL 01
MS9X70CA 01 01

MARKETS: Applicable markets:

Canada
US
Europe
Asia/Pacific
CALA

MARKETS:

Applicable markets:

Carrier
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ49AA EMB2-16-ELPP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 09 15	ECM 721 01	Initial release of this section.

The Enhanced Link Peripheral Processor(ELPP) Cabinet is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Link Interface Module Cab	NT9X70CA	LIM	1			AP
C42 FSP AND COOLING UNIT (-48V)	NTZZ10CU		1			RUL1
C42 FSP AND COOLING UNIT (-60V)	NTZZ10CW		1			RUL1
C42 Cabinet Mechanical Assy	NT9X95BA	FW	1			AP-01
Local Msg Switch Shf Assy	NT9X7101	LMS	1	39		AP-01
Global +5V Power Converter	NTZZ34PA		1	39	4F	RUL2
Global -5V Power Converter	NTZZ34PC		1	39	1F	RUL2
Message Switch P-Bus Term.	NT9X49CC		2	39	7F, 32F	AP
Message Switch 4 Port CP	NT9X17AD		4	39	9F, 10F, 29F, 30F	AP
LMS F-BUS Rate Adapter CP	NT9X73BB		6	39	11F-13F, 26F-28F	AP
Mapper CP	NT9X15AA		2	39	15F, 24F	AP
CPU 16 MHz CP	NT9X13DE		2	39	17F, 22F	AP
Message Switch Clock	NT9X53AD		2	39	18F, 21F	AP
T-Bus Access CP	NT9X52AA		2	39	19F, 20F	AP
Filler Faceplate	NT9X19AA		6	39	8F, 14F, 16F, 23F, 25F, 31F	AP
SR128 Fiber Paddle Board	NT9X62BB		4	39	9R, 10R, 29R, 30R	AP
F-Bus Extender PB	NT9X79BB		6	39	11R, 12R, 13R, 26R, 27R, 28R,	AP
Remote Terminal I/F CP	NT9X26AB		2	39	17R, 22R	AP
PB Filler Faceplate	NT9X19BA		10	39	7R, 8R, 14R-16R, 18R-21R, 23R-25R, 31R-32R	AP
Designation Label NT9X49CC	P0735103		2	39		AP
Designation Label NT9X17AD	P0735096		4	39		AP
Designation Label NT9X73BB	P0869685		6	39		AP
Designation Label NT9X53AD	P0803728		2	39		AP
Designation Label NT9X15AA	P0727359		2	39		AP
Designation Label NT9X13DE	P0869684		2	39		AP
Designation Label NT9X52AA	P0727364		2	39		AP
Designation Label NT9X19AA	P0709515		6	39		AP
Designation Label NT9X26AB	P0705003		2	39		AP
Designation Label NT9X62BB	P0869682		4	39		AP

NTZZ49AA

Active Equipment

EMB2-16-ELPP

Enhanced Link Peripheral Processor(ELPP) Cabinet

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Designation Label NT9X79BB	P0869683		6	39		AP
Designation Label NT9X19BA	P0709516		10	39		AP
Filtered DS-30 Blkhd (left) (24 Single ports)	NT9X6582			39		RUL3
Filtered DS-30 Blkhd (right) (24 Single ports)	NT9X6583			39		RUL3
DS-30 Blkhd (left) (12 Single ports)	NT9X6584			39		RUL3
DS-30 Blkhd (right) (12 Single ports)	NT9X6585			39		RUL3
Upper cable for LIS 3	NT9X0231		2			RUL3
Lower cable for LIS 3	NT9X0232		2			RUL3
Upper cable for LIS 2	NT9X0233		2			RUL3
Lower cable for LIS 2	NT9X0234		2			RUL3
Upper cable for LIS 1	NT9X0235		2			RUL3
Lower cable for LIS 1	NT9X0236		2			RUL3
SR-128 Fiber optic Cable	A0370149		2	39		RUL3
Link I/F Unit Shelf Assy.	NT9X7204	LIS	3	X		AP-01
NT9X6534 Bulkhead Label	P0735163		6	X		AP-01
Bulkhead Assembly	NT9X6534		6	X		AP-01
Global +5V Power Converter	NTZZ34PA		1	X		RUL2
Filler Face Plate	NT9X19EA		2	X	1F, 33F	RUL2
Global Redundant Power Converter	NTZZ34PB		1	X		RUL2
FBus Repeater CP	NT9X74DA		6	X	7F, 32F	AP
F-Bus Extender PB	NT9X79BA		6	X	7R, 32R	AP
Intra FBus A Term. PB	NTEX20AA		3	X	30R	AP
Designation Label NTEX20AA	P0704360		3	XX	30R	AP
Intra FBus B Term. PB	NTEX20BA		3	X	8R	AP
Designation Label NTEX20BA	P0704361		3	XX	8R	AP
PB Filler Faceplate	NT9X19BA		30	X	10R, 12R, 14R, 16R, 18R, 20R, 22R, 24R, 26R, 28R	AP
CCS7 8MEG LIU (FAULT-SEC.)	NTZZ30TB			X	Y	RUL4
CCS7 32MEG LIU (FAULT-SEC.)	NTZZ30TC			X	Y	RUL4
LIU7 V.35 - ISG	NTZZ30CN			X	Y	RUL4
CCS7 32MEG V.35 - ISG	NTZZ30CP			X	Y	RUL4
High Speed Link Unit (HSL)	NTZZ30RA			X	Y	RUL5
Filler Face Plate	NT9X19AA			XX	08F-31F	RUL6
PB Filler Face Plate	NT9X19BA			XX	9R-29R,	RUL6

NTZZ49AA

Active Equipment

EMB2-16-ELPP

Enhanced Link Peripheral Processor(ELPP) Cabinet

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LIU Cable Routing Label	P0714420			26		RUL7
LIU Cable Routing Label	P0735397			26		RUL7
LIU Cable Routing Label	P0714421			13		RUL7
LIU Cable Routing Label	P0735398			13		RUL7
LIU Cable Routing Label	P0714422			00		RUL7
LIU Cable Routing Label	P0735399			00		RUL7
HLIU Cable Routing Labels	P0714414			26		RUL7
HLIU Cable Routing Labels	P0714415			26		RUL7
HLIU Cable Routing Labels	P0714416			13		RUL7
HLIU Cable Routing Labels	P0714417			13		RUL7
HLIU Cable Routing Labels	P0714418			00		RUL7
HLIU Cable Routing Labels	P0714419			00		RUL7
Bulkhead Conn Cover Plate	NTEX5025			X		RUL8
External Pwr Cabling Kit	NT9X9532		1			RUL9
Horizontal Pwr Cabling Kit	NT9X9531		1			RUL9
Terminal Block Desig Strips	P0736058		1			RUL9
Filter Capacitor Desig Sheet	P0736059		1			RUL9
End Guard Labels(000-011)	P0737499		1			RUL10
End Guard Labels(012-023)	P0737500		1			RUL10
FSP Term Block Cover Ass.	A0368392		1			AP-01
ESP Ground Terminal Assy	NT9X0324		1			RUL11

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) Shelf mounting positions X = 26, 13, 00.

- 2) CP mounting position Y = 8F, 10F, 12F, 14F, 16F, 18F, 20F, 22F, 24F, 26F, 28F, 30F.

RULES:

- AP 1) When PEC NTZZ49AA is ordered, these items are provided.
- 2) The NT9X95BA contains the NT9X9575 Cabinet Framework.
- The NT9X9575 framework provides earthquake and EMI protection. The framework is 72" high, 28" deep and 42" wide.
- Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42 (S/DMS) Cabinet.
- 3) AP-01: These PEC are always provided on the NT9X70CA and are shown herein for completeness.

- RUL1 1) For each cabinet, provide:
- For 48VDC applications, one (1) NTZZ10CU. This contains
 - one (1) NT9X01AA Frame Super. Panel (-48V), and
 - one (1) NT9X95CU Cooling Unit (-48V).
- (OR)
- For 60VDC applications, one (1) NTZZ10CW. This contains
 - one (1) NT9X03BA Frame Super. Panel (-60V), and
 - one (1) NT9X95GU Cooling Unit (-60V).
- 2) The cooling unit provisioned in RUL1 comes with three (3) replaceable blower assemblies. If the customer requests additional spares for the cooling unit, provide in customer specified quantities:
- For the NT9X95CU Cooling Unit (-48V),
 - A0383325 -48V Blower Assembly (NPS25122-65L5), or
 - For the NT9X95GU Cooling Unit (-60V),
 - A0382103 -60V Blower Assembly.

- RUL2 1) Always Provide one NTZZ34PA, Global +5V Power Converter and one NTZZ34PC, Global -5V Power Converter per LMS shelf in the ELPP cabinet in the -48V or in the -60V Powered Installations. The NTZZ34PA contains two (2) NT9X30ABs. The NTZZ34PC contains two (2) NT9X31ABs.

- 2) Also Provide one NTZZ34PA, Global +5V Power Converter per each LIS shelf in the ELPP cabinet in the -48V or in the -60V Powered Installations when Dual Power Redundancy is not required. The NTZZ34PA contains two (2) NT9X30ABs. Also Provide (2) NT9X19EA, Power Filler Face Plates per each LIS shelf.

(OR)

- 2A) Provide one NTZZ34PB, Global Redundant Power Converter per each half shelf and only for the LIS shelf, when Dual Power Redundancy is required. This Dual Power converter permit power protection to ASUs without requiring the provisioning of dual ASUs across multiple half-LIS shelves. Refer to this Functional Block to see what other parts are 'Always Provided(AP)' in it.

- RUL3 1) Provide one (1) of each Bulkhead plate assembly NT9X6582 and NT9X6583, per ELPP cabinet, when the ELPP is NOT USED in Cabinetized offices.

(OR)

- 1A) Provide one (1) of each Bulkhead plate assembly NT9X6584 and NT9X6585, per ELPP cabinet, when the ELPP is installed in the Cabinetized offices.

- 1C) Provide two (2) A0370149 Inter-LMS SR-128 Fiber optic cable since the LMS is equipped with the NT9X62 SR-128 Fiber Paddle boards.

- 1D) Provide six (6) NT9X0170 composite clock cable assemblies.

- 1E) Provide two (2) each of the following Cable assemblies to support the triple F-Bus.

NT9X0231 - Upper cable for LIS 3
NT9X0232 - Lower cable for LIS 3
NT9X0233 - Upper cable for LIS 2
NT9X0234 - Lower cable for LIS 2
NT9X0235 - Upper cable for LIS 1
NT9X0236 - Lower cable for LIS 1

- RUL4 1) Provide one (8) meg NTZZ30TB for each DS0A SS7 link required. The NTZZ30TB is also used for applications requiring E-DS0A SS7 Links utilizing the Link Fault Sectionalization feature in STP02.

(OR)

- 1A) Provide one (1) NTZZ30TC for application requiring 32 Meg memory. This is only to be used in STP Offices until further notice.
- 2) When interfacing a V.35 signalling link, provide one (1) NTZZ30CN CCS7 8MEG LIU (V.35) - ISG. This can be used for offices requiring ISG compliance.

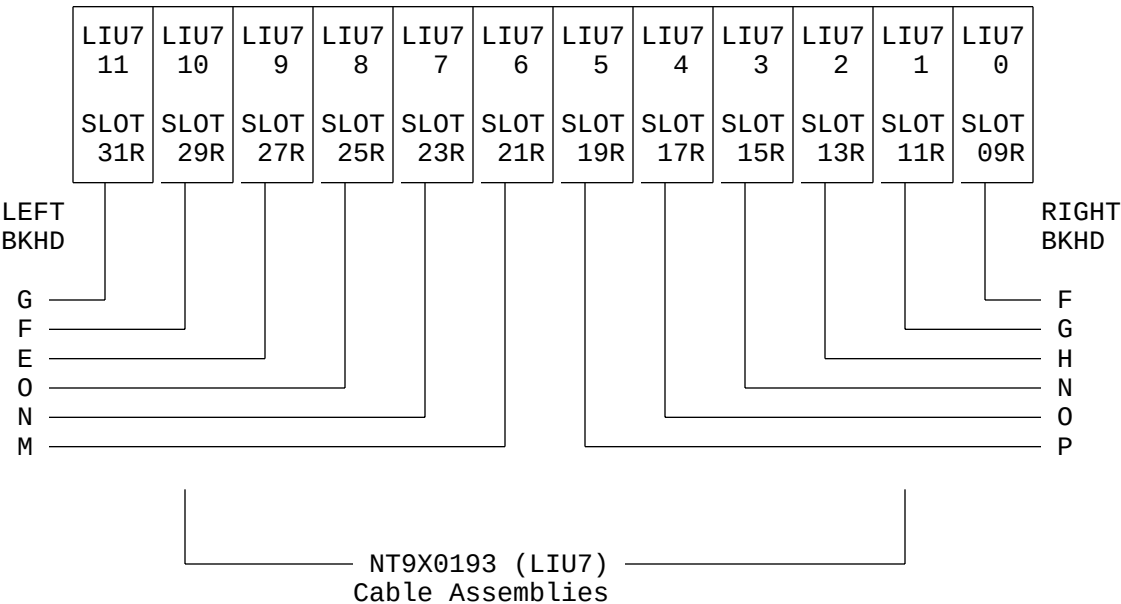
(OR)

- 2A) Provide one (1) NTZZ30CP for application requiring 32 Meg memory. This is only to be used in STP Offices until further notice.
- 3) For reliability, the LIU7s, are to be spread across shelf positions 00, 13, and 26 as shown below. The ASU number is the circuit number assigned to the ASU (ie, LIU7 #0). The ASU Assignment Sequence is an example of the link assignment within the linkset, and is spread across all relevant shelves, and 'A' and 'B' Power distribution (left/right halves of the shelf). Refer to the 'Data Schema' document for data fill instructions and examples.

	L M S											
	LIU7											
ASU Numbering	0	2	4	6	8	11						
ASU assignment Sequence for LIS:01	1	7	13	19	25	31	34	28	22	16	10	4
ASU Numbering	12	14	16	18	20	23						
ASU assignment Sequence for LIS:02	5	11	17	23	29	35	32	26	20	14	8	2
ASU Numbering	24	26	28	30	32	35						
ASU assignment Sequence for LIS:03	3	9	15	21	27	33	36	30	24	18	12	6
(CP POS)	0	1	1	1	1	1	2	2	2	2	2	3
	8	0	2	4	6	8	0	2	4	6	8	0

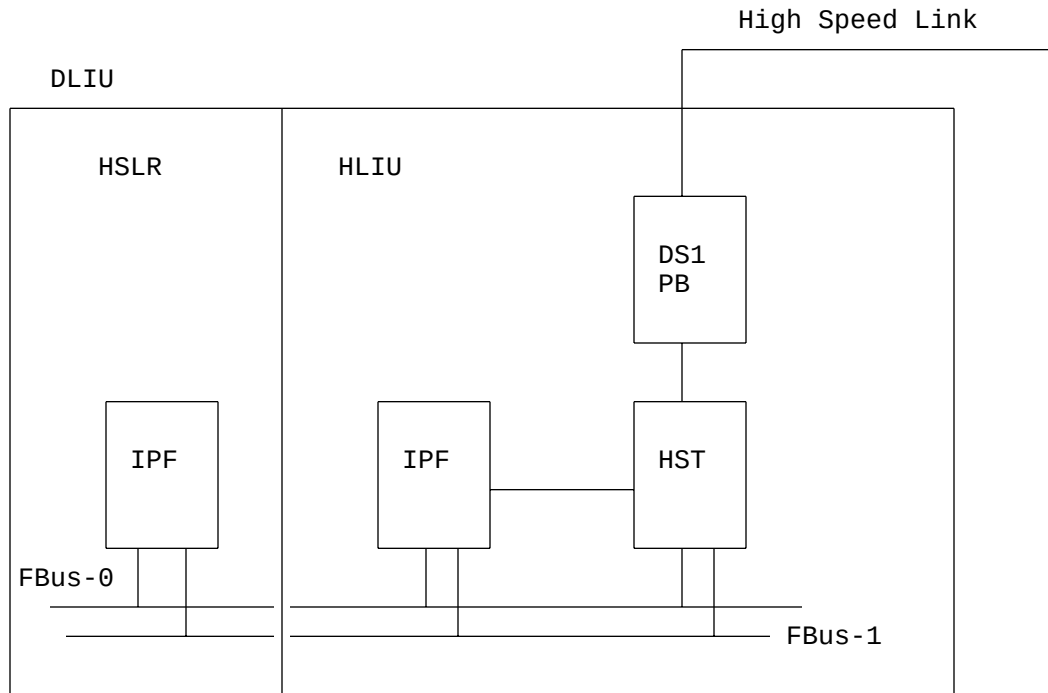
ASSIGNMENT SEQUENCE OF ASUs
TO LINK INTERFACE MODULE

4) Following is the rear view of LIS 01, LIS 02, LIS 03 arrangement and cable provisioning:



RUL5 1) Provide one NTZZ30RA for each High Speed link required. High Speed Link Interface Unit (HLIU), strictly speaking, refers to the maintainable entity (accessible at the PM MAP level) consisting of the NTEX87AA Paddle board, the NTEX76AA High Speed Signalling Terminal (HST), and the NTEX22CA IPF. However, this term is also be used to refer to the entire set of HSL link termination hardware.

Dual Link Interface Unit (DLIU) term is used to describe the entire set of HSL link termination hardware, when using HLIU term. Refer to figure below.

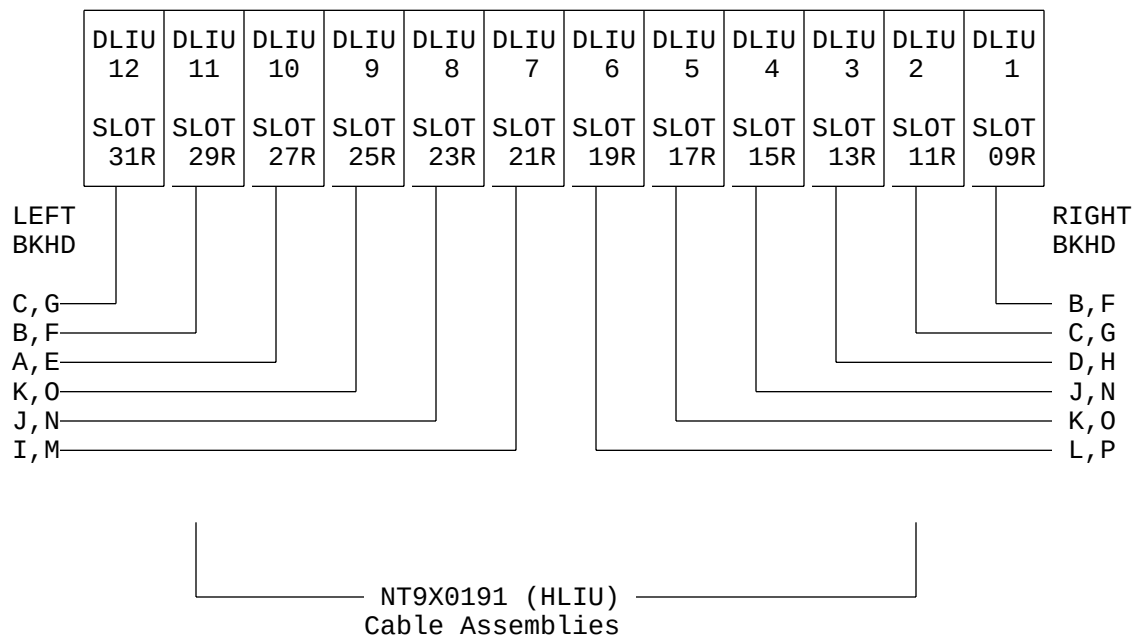


- 2) For reliability, the DLIUs are to be spread across shelf positions 00, 13, and 26 as shown below. The ASU number is the circuit number assigned to the ASU (ie, DLIU #1). The ASU Assignment Sequence is an example of the link assignment within the linkset, and is spread across all relevant shelves, and 'A' and 'B' Power distribution (left/right halves of the shelf). Refer to the 'Data Schema' document for data fill instructions and examples.

	L M S											
	DLIU											
ASU Numbering	0	2	4	6	8	11						
ASU assignment Sequence for LIS:01		1	7						10		4	
ASU Numbering												
ASU assignment Sequence for LIS:02		5	11						8		2	
ASU Numbering												
ASU assignment Sequence for LIS:03		3	9						12		6	
(CP POS)	0	1	1	1	1	1	2	2	2	2	2	3
	8	0	2	4	6	8	0	2	4	6	8	0

ASSIGNMENT SEQUENCE OF ASUs TO LINK INTERFACE MODULE

- 3) When Dual Processor Units are used, upto 12 HSLs may be configured per ELPP for ISUP traffic and upto 10 HSLs per ELPP for TACP traffic. For example with 12 DLIUs, each half shelf in a three shelf ELPP, in which all the half shelves contain DLIUs, should have exactly 2HSLRs and 2 HLIUs. Note that since HSLR and HLIU are working together, configure the HSLR at the 'n' location and the HLIU at the 'n+1' location in the shelf. Note configure the 'n-1' location with the filler for HSLR.
- 4) Following is the rear view of LIS 01, LIS 02, LIS 03 arrangement and HLIU cable provisioning:



Note P2, and P3 are connector designations while 3 and 4 are the actual markings on the paddleboard. (Not shown in the figure below)

- RUL6 1) Provide two (2) Filler Face Plate and one (1) Filler Paddle Board for each ASU position not assigned to an application.
- RUL7 1) Provide LIU, HLIU cable routing labels per the half shelf shown below:

Shelf	Slots	LIU Label	HLIU Label
26	31R-21R	P0735397	P0714414
26	19R-09R	P0714420	P0714415
13	31R-21R	P0735398	P0714416
13	19R-09R	P0714421	P0714417
00	31R-21R	P0735399	P0714418
00	19R-09R	P0714422	P0714419

- RUL8 1) Provide one Bulkhead Connector Cover Plate for each unused connector position on the LIS shelf bulkheads. The number of cover plates required per LIS shelf is equal to:

32 - (#DLIUs on LIS shelf * 2 + #LIUs on LIS shelf)

- RUL9 1) Provide one (1) NT9X9532 External Power Cabling Interface Kit and one (1) P0736059, Filter Capacitor Designation Label Sheet, when powering the NT9X70CA cabinet from the 7 foot PDC frame or powering from the new CPDC (NTRX31CA) cabinet, or powering from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the different lineup than the NT9X70CA. This kit includes power cables, terminal blocks and miscellaneous mounting hardware. (The Designation Label sheet contains enough labels to fully designate the filter capacitors for one cabinet). A maximum of three (3) Model B Cabinets, including LIM, with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).
- 2) Provide one (1) NT9X9531 Horizontal Power Cabling Interface Kit and one P0736058 Terminal Block Designation strip when powering the NT9X70CA cabinet from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the same lineup as the NT9X70CA. This kit includes power cables, terminal blocks, and miscellaneous mounting hardware. A horizontal power arrangement is used in Cabinetization Model A lineups. The NT9X9531 Horizontal Power Kit may be used when LIM Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).
- RUL10 1) Provide one End Guard Label 000-011 when NT9X70CA Cabinet is ordered. When the office is equipped with 13 or more NT9X70CA Cabinets provide one End Guard Label 012-023.
- RUL11 1) Provide one (1) NT9X0324 ESP Ground Terminator Assembly in all British Telephone offices.

ESF FRAME RELAY INTERFACE UNIT

PEC CODE: NTZZ30LA

| CPC CODE: B0234946

| RATING: STD

| REPLACES: Not Applicable

| REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ30LA provides one T1 interface for Frame Relay Service.

REFERENCE DOCUMENTATION: SLZZ30LA 00 02
NTZZ30LA REL 02

MARKETS: Applicable markets:

| US
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30LA EMB2-16-FIU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 97 05 08	----- ECM 620 35	Previous history not available Include Wireless in the market section

The ESF Frame Relay Interface Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F/Bus I/F	NTEX22BB		1	XX	YYF	AP
Frame Relay Access Proc	NTEX31BA		1	XX	YYF+1	AP
Frame Relay T1 Access	NTEX30AA		1	XX	YYR+1	AP
FRIU (2 slot) ID Label	P0735916		1	XX	YYF	AP
Desig. Label NTEX30AA	P0711675		1	XX	YYR+1	AP
FRIU Cable Assembly	NT9X0191		2	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30LA can be assigned to shelf mounting positions XX = 26, 13, 00. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30LA is ordered, these items are provided.

FLIS CABINET

PEC CODE: NTZZ30PN

CPC CODE: B0246022

RATING: Standard.

REPLACES: NTZZ30PM

REPLACED BY: Not Applicable

ABBREVIATION NAME: EMC

ENGINEERING DESCRIPTION: The FLIS Cabinet houses up to two (2) Link Interface Shelves (LIS). The first shelf, referred to as LIS 1, is mounted in shelf position 26. The second shelf, if equipped, is referred to as LIS 2 and is mounted in shelf position 13. This Functional Block is NOT equipped with Cooling units, Frame Supervisory Panel. The NTZZ10CU titled 'C42 FSP AND COOLING UNIT(-48V)' will be used across all C42 cabinets for markets requiring -48V application. The NTZZ10CW titled 'C42 FSP AND COOLING UNIT(-60V)' will be used across all C42 cabinets for markets requiring -60V application. Use them as required in each application. Refer to this section carefully to find out the 'Always Provided (AP)' and the Provisionable items to this Functional Block.

REFERENCE DOCUMENTATION: NTZZ30PN REL 01
SLZZ30PN 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30PN EMB2-16-FLIS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 22	ECM 612 18	Introduction of new NTZZ30PN as a base Functional Block for FLIS. Included LIU, EIU and FRIU routing Replace the NTZZ30AM block with with the NTZZ30TB. Changed the FSP Terminal Block Cover provisionable to required per EC 018-48705. Added the FB for 6 new 32 Meg ASUs including the NTZZ30NB, NTZZ30MB, NTZZ30ED, and NTZZ44DC per EC 018-47110.
96 06 24	ECM 612 19	
97 02 28	ECM 612 20	
97 09 05	ECM 612 21	Remove NTZZ30BM, NTZZ30TC and NTZZ30CP from previous issue history section since they were not applicable to FLIS MD NT0X24BT and NT0X24CN as per ECD: 018-51456. The replacement NT9X0105 is always included with the cabinet Stocklist.

The FLIS CABINET is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced Multipurpose Cab.	NTEX01AB	EMC	1			AP
C42 FSP AND COOLING UNIT (-48V)	NTZZ10CU		1			RUL1
C42 FSP AND COOLING UNIT (-60V)	NTZZ10CW		1			RUL1
C42 Cabinet Mechanical Assy	NT9X95BA	FW	1			AP-01
Blank Shelf Assembly	NT0X24BD		2	39,00		AP
Fiberized LIU Shelf Assembly	NTZZ30HB		1	26,13		RUL1
Global +5V Power Converter	NTZZ34PA		1	X	4F, 36F	RUL14
Global -5V Power Converter	NTZZ34PC		1	X	1F, 33F	RUL14
Global Redundant Power Converter	NTZZ34PB		1	X		RUL14
Blank Shelf Assembly	NT0X24BD		1	13		RUL1
Screws & Washers	P097F813		4	13		RUL1
	P0284154		1	13		RUL1
	P0183220		1	13		RUL1
# LIU7 E-DS0A	NTZZ30AM			26,13	8F-30F	RUL2
CCS7 8MEG LIU (FAULT-SEC.)	NTZZ30TB			26,13	8F-30F	RUL2
# LIU7 V.35	NTZZ30CM			26,13	8F-30F	RUL3
LIU7 V.35 - ISG	NTZZ30CN			26,13	8F-30F	RUL3
LIU7 w Channel Bus I/F (CBI)	NTZZ44DB			26,13	8F-30F	RUL3
CCS7 32MEG E-LIU (CBI)	NTZZ44DC			26,13	8F-30F	RUL3
EIU (BCS34 and Above)	NTZZ30EC			26,13	8F-30F	RUL3
EIU With 32MEG Processor	NTZZ30ED			26,13	8F-30F	RUL3
FRIU	NTZZ30LA			26,13	8F-30F	RUL3
NIU	NTZZ30MA			X	18F	RUL3
NIU With 32MEG Processor	NTZZ30MB			X	18F	RUL3
XLIU	NTZZ30NA			X	Y	RUL3
XLIU With 32MEG Processor	NTZZ30NB			X	Y	RUL3
Filler Face Plate	NT9X19AA			26,13	8F-31F	RUL4
PADBD Filler Face Plate	NT9X19BA			26,13	9R, 11R	RUL4
					13R, 15R,	
					17R, 19R,	
					21R, 23R,	
					25R, 27R,	
					29R, 31R	
LIU Cable Routing Labels (Sheet)	P0714420		1	26		RUL5
	P0714421		1	13		RUL5
LIU Cable Routing Labels (Sheet)	P0735397		1	26		RUL5
	P0735398		1	13		RUL5
FRIU Cable Routing Labels (Sheet)	P0714414		1	26		RUL5
	P0714415		1	26		RUL5
	P0714416		1	13		RUL5

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	P0714417		1	13		RUL5
NIU Cable Rtg Labels (sheet)	P0735393		1	26		RUL6
NIU Cable Rtg Labels (sheet)	P0735391		1	13		RUL6
External Power Cab. kit	NT9X9532		1			RUL7
Horizontal Power Cab.kit	NT9X9531		1			RUL7
Bulkhead Cover Plate Assy.	NTEX5025			26,13		RUL9
Power Filter Labels	P0736059		1			RUL10
Terminal Block Desig. Strip	P0736058		1			RUL10
Optical Fiber label	P0736273					RUL10
ESP Ground Terminal Assy.	NT9X0324		1			RUL10
Ext. Cab.Label (EMC 00-05)	P0733690		1			RUL11
Ext. Cab.Label (EMC 06-11)	P0733691		1			RUL11
Ext. Cab.Label (EMC 12-16)	P0733692		1			RUL11
PDC Designation Label	P0733693		1			RUL11
FSP Designation Label	P0733694		1			RUL11
C42 Cabinet Mechanical Assy	NT9X95BA					NOTE3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ30AM	MD	NTZZ30TB
NTZZ30BM	MD	NTZZ30TB
NTZZ30CM	MD	NTZZ30CN
NT0X24BT	MD	NT9X0105 (Note 4)
NT0X24CN	MD	NT9X0105 (Note 4)

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) Shelf mounting positions X = 26, 13.

- 2) CP mounting position Y = 8F, 10F, 12F, 14F, 16F, 18F, 20F, 22F, 24F, 26F, 28F, 30F.
- 3) Refer to NT9X95BA(EMA4-07-001) for additional mechanical hardware requirements for C42 Cabinet.
- 4) The Provisionable Frame fail lights NT0X24BT and P0674502 (in Brown) or NT0X24CN and P0699441 (in Grey) have been removed from this document. The new NT9X0105 Black LAMP Bezel will always be provided with the cabinet.

RULES:

- AP 1) When PEC NTZZ30PN is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NTEX01AB Cabinet and is shown herein for completeness.
- 2) The NT9X95BA contains the NT9X9575 Cabinet Framework.

The NT9X9575 framework provides earthquake and EMI protection. The framework is 72" high, 28" deep and 42" wide.

Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42(S/DMS) Cabinet.

- RUL1 1) For each cabinet, provide:
- For 48VDC applications, one (1) NTZZ10CU. This contains
 - one (1) NT9X01AA Frame Super. Panel (-48V), and
 - one (1) NT9X95CU Cooling Unit (-48V).

(OR)

- For 60VDC applications, one (1) NTZZ10CW. This contains
 - one (1) NT9X03BA Frame Super. Panel (-60V), and
 - one (1) NT9X95GU Cooling Unit (-60V).

1A) The Cooling Unit NT9X95CU in NTZZ10CU, is for -48V Powered installations. This unit comes with 3 replaceable blower assemblies (A0383325) installed, however customers may desire spares. The Cooling Unit mounts immediately below position 00.

1B) The Cooling Unit NT9X95GU, in NTZZ10CW, is for -60V Powered installations. This unit comes with 3 replaceable blower assemblies (A0383326) installed, however customers may de-

sire spares. The Cooling Unit mounts immediately below position 00.

- 2) Provision one (1) NTZZ30HB Fiberized LIU Shelf Assembly in shelf position 26.
- 3) Provision one (1) NTZZ30HB Fiberized LIU Shelf Assembly in shelf position 13 if more than twelve (12) LIUs are required.

(OR)

- 4) Provision one (1) NTZZ30HB Fiberized LIU Shelf Assembly in shelf position 13 if the quantity of LIUs plus XLIUs exceeds ten (10). Note that LIS MUST be provisioned with NIUs to use the DMS Packet Handler configuration, and NIUs cannot be split over two shelves.
- 5) Otherwise, provision one (1) NT0X24BD Blank Shelf Assembly.
- 6) Provision four (4) P097F813 screws, one (1) P0284154 washer and one (1) P0183220 locker washer when a link interface shelf assembly NTZZ30HB is required in shelf position 13.

RUL2 1) Provide one (8) meg NTZZ30TB for each DS0A SS7 link required. The NTZZ30TB is also used for applications requiring E-DS0A SS7 Links utilizing the Link Fault Sectionalization feature. Note that the NTZZ30AM and BM are MD'd and replaced by the NTZZ30TB.

RUL3 1) For Offices requiring V.35 SS7 link, provide one (1) NTZZ30CN CCS7 8MEG LIU (V.35) - ISG. Note that NTZZ30CM is MD'd and replaced by the NTZZ30CN.

2) Provide one NTZZ44DB when an LIU7 with Channel Bus Interface (CBI) capability is required.

(OR)

2A) Provide one (1) NTZZ44DC for application requiring 32 Meg memory. This is only to be used in STP offices until further notice. The NTZZ30MA/MB (NIU) must be provided on a LIS shelf for the NTZZ44DB/DC LIU7 CBI to function. Note that NTZZ44DA has been MD'd and replaced by NTZZ44DB.

3) Provide one NTZZ30EC for each Ethernet interface required.

(OR)

- 3A) Provide one (1) NTZZ30ED for application requiring 32 Meg memory. This is only to be used in CDPD application for the Wireless market until further notice.
- 4) For BCS 34 and later, provide one NTZZ30LA for each Frame Relay Service T1 interface required.
- 5) Provide one NTZZ30MA for each Network Interface Unit required. One NIU provides network interface capability for one complete LIS shelf (maximum of eight XLIUs).

(OR)

- 1A) Provide one (1) NTZZ30MB for application requiring 32 Meg memory. This is only to be used in CDPD application for the Wireless market until further notice.
- 6) Provide one NTZZ30NA for each X.25/X.75 Link Interface Unit required.

(OR)

- 1A) Provide one (1) NTZZ30NB for application requiring 32 Meg memory. This is only to be used in CDPD application for the Wireless market until further notice.
- 7) One LIS will support up to eight (8) DMS Packet Handler plus two (2) LIU7s per application. The SSLPP cabinet can support up to a maximum of eight (8) DMS packet handler and two LIU7s.

Each DMS Packet Handler is composed of two circuit packs and one paddleboard. Note that LIS MUST be provisioned with NIUs to use the DMS Packet Handler configuration, and NIUs cannot be split over two shelves.

Refer to Figure below. The numbers 2,4,8,12 represent the paddle boards connections.

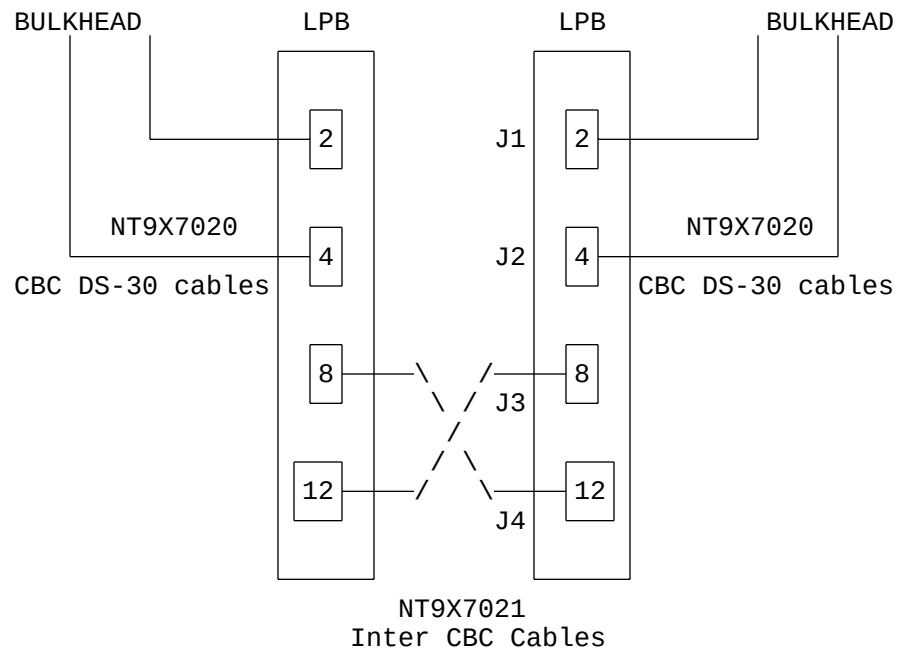


Figure: NIU cable connection

- RUL4 1) Provision NT9X19AA Filler Face Plates and NT9X19BA Paddleboard Filler Face Plates for the unoccupied slots.

- RUL5 1) Provide one sheet of Routing Labels per half shelf when ASUs are provisioned in that shelf.

		FRIU	LIU, EIU
SHELF	SLOTS	LABEL	LABEL
26 26	31R-21R 19R-09R	P0714414 P0714415	P0735397 P0714420
13 13	31R-21R 19R-09R	P0714416 P0714417	P0735398 P0714421

- RUL6 1) Provision one (1) sheet of NIU cable routing labels when NIUs are provisioned in this shelf.

- RUL7 1) Provide one (1) NT9X9532 External Power Cabling Interface Kit when powering the NTEX01AB cabinet from the 7 foot PDC frame OR powering from the new CPDC (NTRX31CA) cabinet, OR powering from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the different lineup than the NTEX01AB. This kit includes cables, filters, and miscellaneous mounting hardware. A maximum of three (3) Model B Cabinets, including LIM, with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).

- 2) Provide one (1) NT9X9531 Horizontal Power Cabling Interface Kit when powering the NTEX01AB cabinet from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the same lineup as the NTEX01AB. This kit includes power cables, terminal blocks, and miscellaneous mounting hardware. A horizontal power arrangement is used in Cabinetization Model A lineups. The NT9X9531 Horizontal Power Kit may be used when LIM Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).

- RUL8) 1) Deleted.

- RUL9 1) Provision one (1) NTEX5025 Bulkhead cover plate assembly for each unequipped position in the NT9X6534 Bulkheads. (The NT9X6534 Bulkheads are provided with the NTZZ30HA. When there is an unequipped position or slot on the NT9X6534 Bulkhead this is to be covered with one (1) NTEX5025 Bulkhead cover plate.

- RUL10) 1) Provide one (1) P0736059 power filter label per EMC cabinet when powering the NTEX01AB cabinet in a non-streamline (stand-alone) application.
- 2) Provide one (1) P0736058 terminal block designation strip per EMC when powering the NTEX01AB cabinet in a streamline application.
- 3) Provide one (1) P0736273 optical fiber danger label per link interface shelf assembly NT9X7204.
- 4) Provide one (1) NT9X0324 ESP Ground terminator assembly in all British Telephone offices.
- RUL11 1) The Following Labels are field applied and they are to be shipped loose to sight.
- 2) Provision P0733690 for EMC cabinets numbered from 00-05.
- 3) Provision P0733691 for EMC cabinets numbered from 06-11.
- 4) Provision P0733692 for EMC cabinets numbered from 12-16.
- 4) Provision one (1) P0733693 PDC label per office.
- 5) Provision one (1) P0733694 FSP label per office.
- RUL12 1) Deleted.
- RUL13 1) Deleted.
- RUL14 1A) Provide one NTZZ34PA, Global +5V Power Converter per each LIS shelf in -48V or in -60V Powered Installations when Dual Power Redundancy is not required. The NTZZ34PA contains two (2) NT9X30ABs.

AND

- 1B) Provide one NTZZ34PC, Global -5V Power Converter per each LIS shelf in -48V or in -60V Powered Installations when Dual Power Redundancy is not required. The NTZZ34PC contains two (2) NT9X31ABs.

(OR)

- 2) Provide one NTZZ34PB, Global Redundant Power Converter per each half shelf, when Dual Power Redundancy is required. This Dual Power converter permit power protection to ASUs without requiring the provisioning of dual ASUs

across multiple half-LIS shelves. Refer to this Functional Block to see what other parts are 'Always Provided(AP)' in it.

FIBERIZED LIU SHELF ASSEMBLY

PEC CODE: NTZZ30HB

CPC CODE: B0241341

RATING: Standard

REPLACES: NTZZ30HA

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ30HB provides the Fiberized LIU Shelf Assembly.

REFERENCE DOCUMENTATION: SLZZ30HB 00 01
NTZZ30HB REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Ganesh Ram DEPT. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram DEPT. 3471 (PPK)

NTZZ30HB EMB2-16-FLIU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 08 27	ECM 612 07	Solving ET #: 16909.
94 06 30	ECM 612 10	Changes per EC 018-43057
94 08 09	ECM 612 11	Changes per EC 006-19337,MD'd NTZZ30HA and replaced with ntZZ30HB.
94 08 24	ECM 612 12	Correct EMS to reflect stocklist.
95 12 12	ECM 612 17	Reference to NTEX22 is removed since they are not required to this section.
96 03 22	ECM 612 18	Verification of Pack Labels not required as part of Thermal Label project.

The Fiberized LIU Shelf Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Link Interface Shelf Assy	NT9X7204		1			AP
LIS F-Bus Controller CP	NT9X96AA		2	XX	07F, 32F	AP
LIS Fiber INTF Paddle Board	NT9X98AA		2	XX	07R, 32R	AP
F-Bus A Terminator PB	NTEX20AA		1	XX	30R	AP
F-Bus B Terminator PB	NTEX20BA		1	XX	8R	AP
PB Filler Face Plate	NT9X19BA		10	XX	10R, 12R, 14R, 16R, 18R, 20R, 22R, 24R, 26R, 28R,	AP
Bulkhead Assembly Left	NT9X6534		1	XX		AP
Bulkhead Assembly Right	NT9X6580		1	XX		AP
FLIS Cable Assembly	NT9X9820		1			AP
Composite Clock Cable Assy	NTEX0120		2			AP
Rear Bot Design Strip Label	P0739095		1	XX		AP
Rear Top Design Strip Label	P0739096		1	XX		AP
Front Top Design Strip Label	P0800327		1	XX		AP
FLIS Shelf Des. strip(REAR)	P0730475		1	XX		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30HB mounting positions XX = 26, 13

RULES:

AP 1) When PEC NTZZ30HB is ordered, these items are provided.

CCS7 8MEG E-LIU (CBI)

PEC CODE: NTZZ44DB

CPC CODE: B0243005

RATING: STD

REPLACES: NTZZ44DA

REPLACED BY:

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ44DB provides one Signaling Data Link for interface to other SS7 offices. Each LIU7 provides one Channelized Bus Interface (CBI) access with 8Meg of memory. There are no cables required for the NTEX26AA Channel Bus Interface paddleboard.

REFERENCE DOCUMENTATION: SLZZ44DB 00 01 REL 01
NTZZ44DB 00 01 REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44DB EMB2-16-LI-20 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 04 17	ECM 620 27	New insert introduced.
97 05 08	ECM 620 35	Include Wireless in the market section

The CCS7 8Meg E-LIU (CBI) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced IPF & F/Bus I/F	NTEX22BB		1	XX	YYF	AP
STP Signaling Terminal I/F	NT9X76AA		1	XX	YYF+1	AP
Channel Access Bus I/F PB	NTEX26AA		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0738554		1	XX	YYF	AP
Desig. Label NTEX26AA	P0733875		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ44DB can be assigned to shelf mounting positions
XX = 26, 13, 00.
The slot positions are defined by
YY = 08, 10, 12, 14, 16, 22, 24, 26, 28, or 30.

F = Front of shelf, R = Rear of shelf.

Note: Slot positions 18 and 20 are taken up by the NIU plane 0 and plane 1 when Channelized Access is provided on an LIS shelf.

RULES:

- AP 1) When PEC NTZZ44DB is ordered, these items are provided.

CCS7 8MEG E-LIU (JAPAN ISUP WITH CBI)

PEC CODE: NTZZ44EB

CPC CODE: B0243004

RATING: STD

REPLACES: NTZZ44EA

REPLACED BY:

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ44EB provides one Signaling Data Link for interface to other SS7 offices.

The ISUP signaling card (NT9X76CA) can only be used in an office with Channelized Access (NIU).

Each LIU7 provides one Channelized Bus Interface (CBI) access with 8Meg of memory. There are no cables required for the NTEX26AA Channel Bus Interface paddleboard.

REFERENCE DOCUMENTATION: SLZZ44EB 00 01
NTZZ44EB REL 01

MARKETS: Applicable markets:

Asia/Pacific

ISSUE AUTHOR: NTI: Robert Leydig Dept. 3471 (PPK)

MAIN CONTACT: NTI: Robert Leydig Dept. 3471 (PPK)

NTZZ44EB EMB2-16-LI-21 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 04 17	ECM 620 27	New insert introduced.

The CCS7 8Meg E-LIU (JAPAN ISUP with CBI) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced IPF & F/Bus I/F	NTEX22BB		1	XX	YYF	AP
ISUP Signaling Terminal I/F	NT9X76CA		1	XX	YYF+1	AP
Channel Access Bus I/F PB	NTEX26AA		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0735937		1	XX	YYF	AP
Desig. Label NTEX22BB	P0735913		1	XX	YYF	AP
Desig. Label NTEX26AA	P0733875		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ44EB can be assigned to shelf mounting positions
XX = 26, 13, 00.
The slot positions are defined by
YY = 08, 10, 12, 14, 16, 22, 24, 26, 28, or 30.

F = Front of shelf, R = Rear of shelf.

Note: Slot positions 18 and 20 are taken up by the NIU plane 0 and plane 1 when Channelized Access is provided on an LIS shelf.

RULES:

AP 1) When PEC NTZZ44EB is ordered, these items are provided.

CCS7 8MEG LIU (FAULT-SEC.)

PEC CODE: NTZZ30TB

CPC CODE: B0242402

RATING: STANDARD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ30TB provides one Signaling Data Link for interface to other SS7 offices. Each LIU7 provides one DS0A link with 8Meg of memory, and supports the use of AR0518 Link Fault Sectionalization software, available in STP02. Enhanced maintenance is available with the use of this type DS0A link.

REFERENCE DOCUMENTATION: SLZZ30TB 00 01
NTZZ30TB REL 00

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30TB EMB2-16-LIU-13 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 02 10	ECM 620 23	Previous history not available Introduce NT9X78DA to support the Link Fault Sectionalization feature.
95 02 20	ECM 612 14	Correct CPC for LIU ID label.
97 05 08	ECM 620 35	Include Wireless in the market section

The CCS7 8Meg LIU (FAULT-SEC.) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced IPF & F/Bus I/F	NTEX22BB		1	XX	YYF	AP
STP Signaling Terminal I/F	NT9X76AA		1	XX	YYF+1	AP
E-DS0A I/F PB	NT9X78DA		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0738554		1	XX	YYF	AP
Desig. Label NT9X78DA	P0803615		1	XX	YYR+1	AP
DS0A Cable Assembly	NT9X0193		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30TB can be assigned to shelf mounting positions XX = 26, 13, 00. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30TB is ordered, these items are provided.

X.25/X.75 LINK INTERFACE UNIT

PEC CODE: NTZZ30NA

CPC CODE: B0235031

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: XLIU

ENGINEERING DESCRIPTION: The NTZZ30NA Building Block contains the equipment required to provision a complete XLIU.

REFERENCE DOCUMENTATION: SLZZ30NA 00 03

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30NA EMB2-16-LIU-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 06 18	ECM 620 04	Introduce NTZZ30NA XLIU.
92 10 02	ECM 620 06	Change labels per the latest MS.
95 06 29	ECM 620 28	Solve ET 70803.
97 05 08	ECM 620 35	Include Wireless in the market section

The X.25/X.75 Link Interface Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Integrated Proc & FBUS I/F	NTEX22BB		1	X	YF	AP
HDLC Frame Processor	NTFX10AA		1	X	Y+1F	AP
CBUS Interface Paddleboard	NTFX09AA		1	X	Y+1R	AP
Design Label (XLIU)	P0735914		1	X	YF	AP
Design Label (NTFX09AA)	P0732784		1	X	Y+1R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30NA can be assigned to shelf mounting positions X = 26, 13, 00. The slot positions are defined by Y = 8, 10, 12, 14, 16, 22, 24, 26, 28, 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30NA is ordered, these items are provided.

CCS7 8MEG LIU (V.35) - ISG

PEC CODE: NTZZ30CN

CPC CODE: B0244616

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ30CN provides one Signaling Data Link for interface to other SS7 offices. Each LIU7 provides one V.35 link with 8 Meg of memory. Use the NTZZ30CN for offices which require ISG.

REFERENCE DOCUMENTATION: SLZZ30CN 00 01
NTZZ30CN REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ30CN EMB2-16-LIU7-14 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 10 23 96 08 01	ECM 620 29 ECM 632 20	New EMB section Standard for all markets per ECD 018-44239.

The CCS7 8MEG LIU (V.35) - ISG is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced IPF & F/Bus I/F	NTEX22BB		1	XX	YYF	AP
STP Signaling Terminal I/F	NT9X76AA		1	XX	YYF+1	AP
V.35 I/F PB	NT9X77AB		1	XX	YYR+1	AP
LIU (2 Slot) ID Label	P0738554		1	XX	YYF	AP
Desig. Label NT9X77AB	P0804444		1	XX	YYR+1	AP
V.35 Cable Assembly	NT9X0193		1	XX	YYR+1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30CN can be assigned to shelf mounting positions XX = 26, 13, 00 in LPP and XX = 26, 13 in FLIS application. The slot positions are defined by YY = 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, or 30. F = Front of shelf, R = Rear of shelf.

RULES:

- AP 1) When PEC NTZZ30CN is ordered, these items are provided.

LINK PERIPHERAL PROCESSOR(LPP) CABINET

PEC CODE: NTZZ44LP

CPC CODE: B0246019

RATING: STD

REPLACES: NTZZ44CP and NTZZ44GP

REPLACED BY: Not Applicable

ABBREVIATION NAME: LIM

ENGINEERING DESCRIPTION: The NTZZ44LP has the capability of housing up to 36 Application Specific Units (ASUs) such as DS0A, V.35, Packet Handler, EIU, etc... This Functional Block is NOT equipped with Cooling units, Frame Supervisory Panel, Power Converters and the DMS Clock Systems. The NTZZ10CU titled 'C42 FSP AND COOLING UNIT(-48V)' will be used across all C42 cabinets for markets requiring -48V application. The NTZZ10CW titled 'C42 FSP AND COOLING UNIT(-60V)' will be used across all C42 cabinets for markets requiring -60V application. Refer to this section carefully to find out the 'Always Provided (AP)' and the Provisionable items to this Functional Block.

REFERENCE DOCUMENTATION: SLZZ44LP 00 01
NTZZ44LP REL 01
MS9X70BB 01 22

MARKETS: Applicable markets:

Canada
US
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ44LP EMB2-16-LPP CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 22	ECM 620 31	Introduction of NTZZ44LP as a Common Base Functional Block for LPP Product.
96 05 08	ECM 620 32	Solve SR RR63359 to change power converter position from 'XX' to 39 and changes made to rule 9. Solved SR RR62788 to clarify rules by modifying RUL13. Corrected item 6 by removing NT9X19BA in RUL1.
96 11 15	ECM 620 33	Solve SR RR6A105 to state the maximum number of XLIUs in the LPP cabinet. XLIU Configuration from inside out is a valid configuration.
97 01 30	ECM 620 34	Implement ECD: 018-48745 to change the A0368392 from provisionable to AP in the stocklist of NT9X70BB. Include provisining rules for ASUs including NTEX22CA.
97 05 08	ECM 620 35	Solve SR RR73680 to correct typo in RUL2. Include Wireless in the market section

The LINK PERIPHERAL PROCESSOR(LPP) CABINET is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Link Interface Module Cab	NT9X70BB	LIM	1			AP
C42 FSP AND COOLING UNIT (-48V)	NTZZ10CU		1			RUL1
C42 FSP AND COOLING UNIT (-60V)	NTZZ10CW		1			RUL1
C42 Cabinet Mechanical Assy	NT9X95BA	FW	1			AP-01
Local Msg Switch Shf Assy	NT9X7101	LMS	1	39		AP-01
Filler Face Plate	NT9X19EA		2	39	1F, 33F	AP
Global +5V Power Converter	NTZZ34PA		1	39	4F	RUL9
Message Switch P-Bus Term.	NT9X49CC		2	39	7F, 32F	AP
LMS F-Bus Rate Adapter CP	NT9X73BA		2	39	8F, 31F	AP
Message Switch 4 Port CP	NT9X17AD		4	39	9F, 10F,	AP
					29F, 30F	
Filler Face Plate	NT9X19AA		8	39	11F-14F,	AP
					25F-28F	
Mapper CP	NT9X15AA		2	39	15F, 24F	AP
# CPU 16 MHz CP	NT9X13DB			39	17F, 22F	RUL1
CPU 16MEG DRAM with RTIF	NTZZ44PR			39	17F	RUL1
24Meg Memory CP	NT9X14DB			39	16F, 23F	RUL1
Filler Faceplate	NT9X19AA			39	16F, 23F	RUL1
DMS-Bus System Clock	NTZZ44MP		1	39	18F	RUL1
Enhanced DMS-Bus Sys. Clock	NTZZ44NP		1	39	18F	RUL1
T-Bus Access CP	NT9X52AA		2	39	19F, 20F	AP
PB Filler Faceplate	NT9X19BA		18	39	7R,	AP
					11R-16R,	
					18R-21R,	
					23R-28R,	
					32R	
DS-30 4 Port	NT9X23BA		4	39	9R, 10R,	AP
					29R, 30R	
F-Bus Ext CP W/Term	NT9X79BA		2	39	8R, 31R	AP
Bulkhead and Cable Assembly	NTZZ44HA		1	39		RUL13
Bulkhead and Cable Assembly (for Cabinetized appl.)	NTZZ44JA		1	39		RUL13
LMS DS-30 X-Link Cable Assy	NT9X0171		2	39		RUL13
LMS DS-30 X-Link Cable Assy	NT9X7025		2	39		RUL13
Link I/F Unit Shelf Assy.	NT9X7204	LIS	3	X		AP-01
NT9X6534 Bulkhead Label	P0735163		6	X		AP-01
Bulkhead Assembly	NT9X6534		6	X		AP-01
Global +5V Power Converter	NTZZ34PA		1	X		RUL9
Filler Face Plate	NT9X19EA		2	X	1F, 33F	RUL9

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Global Redundant Power Converter	NTZZ34PB		1	X		RUL9
F-Bus Extender PB	NT9X79AA		4	13, 26	7R, 32R	AP
F-Bus Extender PB	NT9X79BA		2	00	7R, 32R	AP
Intra FBus A Term. PB	NTEX20AA		3	00, 13, 26	30R	AP
Intra FBus B Term. PB	NTEX20BA		3	00, 13, 26	8R	AP
PB Filler Faceplate	NT9X19BA		30	00, 13, 26	10R, 12R, 14R, 16R, 18R, 20R, 22R, 24R, 26R, 28R	AP
FBus Repeater CP	NT9X74DA		6	X	7F, 32F	AP
# LIU7 E-DS0A	NTZZ30AM			X	Y	RUL2
# LIU7 E/HC-DS0A	NTZZ30BM			X	Y	RUL2
CCS7 8MEG LIU (FAULT-SEC.)	NTZZ30TB			X	Y	RUL2
CCS7 32MEG LIU (FAULT-SEC.)	NTZZ30TC			X	Y	RUL2
# LIU7 V.35	NTZZ30CM			X	Y	RUL3
LIU7 V.35 - ISG	NTZZ30CN			X	Y	RUL3
CCS7 32MEG V.35 - ISG	NTZZ30CP			X	Y	RUL3
EIU (BCS34 and Above)	NTZZ30EC			X	Y	RUL4
EIU With 32MEG Processor	NTZZ30ED			X	Y	RUL4
FRIU Upgrade Kit	NTZZ99AK			X	Y	RUL5
FRIU	NTZZ30LA			X	Y	RUL5
LIU7 w Channel Bus I/F (CBI)	NTZZ44DB			X	Y	RUL21
CCS7 32MEG E-LIU (CBI)	NTZZ44DC			X	Y	RUL21
LIU7 (Japan ISUP with CBI)	NTZZ44EB			X	Y	RUL21
NIU	NTZZ30MA			X	18F	RUL21
NIU With 32MEG Processor	NTZZ30MB			X	Y	RUL21
XLIU	NTZZ30NA			X	Y	RUL22
XLIU With 32MEG Processor	NTZZ30NB			X	Y	RUL22
APU	NTZZ44AA			X	Y	RUL23
VPU	NTZZ44BA			X	Y	RUL24
Media Access Unit (MAU)	A0383333					RUL25
Filler Face Plate	NT9X19AA			XX	08F-31F	RUL6
PB Filler Face Plate	NT9X19BA			XX	9R-29R, 31R	RUL6
LIU Cable Routing Label	P0714420			26		RUL8
LIU Cable Routing Label	P0735397			26		RUL8
LIU Cable Routing Label	P0714421			13		RUL8
LIU Cable Routing Label	P0735398			13		RUL8
LIU Cable Routing Label	P0714422			00		RUL8
LIU Cable Routing Label	P0735399			00		RUL8
FRIU Cable Routing Label	P0714414			26		RUL8

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
FRIU Cable Routing Label	P0714415			26		RUL8
FRIU Cable Routing Label	P0714416			13		RUL8
FRIU Cable Routing Label	P0714417			13		RUL8
FRIU Cable Routing Label	P0714418			00		RUL8
FRIU Cable Routing Label	P0714419			00		RUL8
NIU Cable Routing Label	P0735393			26		RUL8
NIU Cable Routing Label	P0735391			13		RUL8
NIU Cable Routing Label	P0735392			00		RUL8
Bulkhead Conn Cover Plate	NTEX5025			X		RUL20
External Pwr Cabling Kit	NT9X9532		1			RUL10
Horizontal Pwr Cabling Kit	NT9X9531		1			RUL10
Terminal Block Desig Strips	P0736058		1			RUL10
Filter Capacitor Desig Sheet	P0736059		1			RUL10
End Guard Labels(000-011)	P0737499		1			RUL16
End Guard Labels(012-023)	P0737500		1			RUL16
FSP Term Block Cover Ass.	A0368392		1			AP-01
Label, FCC Part 15/CSA	P0679484		1			AP
Cabinet Mechanical Hardware						RUL18
ESP Ground Terminal Assy	NT9X0324		1			RUL12
C42 Cabinet Mechanical Assy	NT9X95BA					NOTE6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ30AM	MD	NTZZ30TB
NTZZ30BM	MD	NTZZ30TB
NTZZ30CM	MD	NTZZ30CN
NT9X13DB	MD	NT9X13DD

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) Shelf mounting positions X = 26, 13, 00.
- 2) CP mounting position Y = 8F, 10F, 12F, 14F, 16F, 18F, 20F, 22F, 24F, 26F, 28F, 30F.
- 3) NIU, LIU7, EIU, FRIU and XLIU may be mixed on the LIM(LPP) in BCS33 and beyond subject to when they are available. The physical assignment of such a mixture shall be accomplished by first assigning the NIU, then the XLIU, then the LIU7, then the EIU, then the FRIU in a continuation of the assignment pattern shown in that rule.

In an office, the Application Specific Units(ASUs) can be number from 1 to 612

The ASUs are to be numbered sequentially in a LIM frame starting with LIS 01 (shelf position 26), followed by LIS 02 (shelf position 13), followed by LIS 03 (shelf position 00). The ASUs positions will be numbered consecutively regardless of whether the ASU is equipped or not.

To keep FRIU traffic off the DMS-Bus in the absence of T1 or T3 trunking, all FRIUs must be in the same LPP.

To keep Packet Handler traffic off the DMS-Bus, all the XLIUs must be located in the same LIM cabinet. The NIU must be assigned to location shown below. Other applications (LIU7, EIU, FRIU, etc) shall be relocated if the need arises. For reliability, the LIU7s, EIUs, and FRIUs are to be spread across shelf positions 00, 13, and 26 as shown below. The ASU number is the circuit number assigned to the ASU (ie, LIU7 #0). The ASU Assignment Sequence is an example of the link assignment within the linkset, and is spread across all relevant shelves, and 'A' and 'B' Power distribution (left/right halves of the shelf). Refer to the 'Data Schema' document for data fill instructions and examples.

	L M S											
	LIU/EIU/FRIU											
ASU Numbering	0	2	4	6	8	11						
ASU assignment Sequence for LIS:01	1	7	13	19	25	31	34	28	22	16	10	4
ASU Numbering	12	14	16	18	20	23						
ASU assignment Sequence for LIS:02	5	11	17	23	29	35	32	26	20	14	8	2
ASU Numbering	24	26	28	30	32	35						
ASU assignment Sequence for LIS:03	3	9	15	21	27	33	36	30	24	18	12	6
(CP POS)	0	1	1	1	1	1	2	2	2	2	2	3
	8	0	2	4	6	8	0	2	4	6	8	0

ASSIGNMENT SEQUENCE OF ASUs TO LINK INTERFACE MODULE

Because channelized access (with NIU) and non-channelized access equipped shelves are mounted in the LIM frame, the following shows the Numbering/Assignment sequences for 3 different configurations. The configurations can be done in two methods: Outside in or Inside Out. Either method provides the desired redundancy, however, the two methods should not be mixed.

FOR FRAMES WITH 3 SHELVES EQUIPPED WITH NIUs, USE THE NUMBERING BELOW:

	L M S											
	NIU/XLIU											
ASU Numbering	0	2	4	6	8	11						
ASU Assignment Sequence for LIS:01	1	7	13	19	25	N I U : 0	N I U : 1	28	22	16	10	4
	25	19	13	7	1	0	1	4	10	16	22	28
ASU Numbering	12	14	16	18	20	23						
ASU assignment Sequence for LIS:02	5	11	17	23	29	N I U : 0	N I U : 1	26	20	14	8	2
	29	23	17	11	5	0	1	2	8	14	20	26
ASU Numbering	24	26	28	30	32	35						
ASU assignment Sequence for LIS:03	3	9	15	21	27	N I U : 0	N I U : 1	30	24	18	12	6
	27	21	15	9	3	0	1	6	12	18	24	30
(CP POS)	0 8	1 0	1 2	1 4	1 6	1 8	2 0	2 2	2 4	2 6	2 8	3 0

from outside in
<-----
XLIUs
<-----
from inside out

XLIUs
<-----

XLIUs
<-----

ASSIGNMENT SEQUENCE OF ASUs
TO LINK INTERFACE MODULE
3 SHELVES WITH NIUs

Refer to NOTE 1 for mixing of LIU7 and EIU with FRIU on the LIM.

FOR FRAMES WITH 2 SHELVES EQUIPPED WITH NIUS AND 1 SHELF WITHOUT NIUS,
USE THE FOLLOWING NUMBERING SEQUENCE:

	L M S											
ASU Numbering	0		2		4		6		8		11	
ASU Assignment Sequence for LIS:01	1	5	9	13	17	N I U : 0	N I U : 1	20	16	12	8	4
	17	13	9	5	1	0	1	3	7	11	15	19
ASU Numbering	12		14		16		18		20		23	
ASU Assignment Sequence for LIS:02	3	7	11	15	19	N I U : 0	N I U : 1	18	14	10	6	2
	20	16	12	8	4	0	1	2	6	10	14	18
ASU Numbering	24		26		28		30		32		35	
ASU Assignment Sequence for LIS:03	1	3	5	7	9	11	12	10	8	6	4	2
	0	1	1	1	1	1	2	2	2	2	2	3
(CP POS)	8	0	2	4	6	8	0	2	4	6	8	0

From outside in
<-----
XLIUs
<-----
From Inside out

XLIUs
<-----

LIUs
<-----

ASSIGNMENT SEQUENCE OF ASUs
TO LINK INTERFACE MODULE
2 SHELVES WITH NIUS AND 1 SHELF WITHOUT NIUS

FOR FRAMES WITH 1 SHELF EQUIPPED WITH NIUS AND 2 SHELVES WITHOUT NIUS,
USE THE FOLLOWING NUMBERING SEQUENCE:

	L M S											
	NIU/XLIU											
ASU Numbering	0	2	4	6	8	11						
ASU Assignment Sequence for LIS:01	1	3	5	7	9	N I U : 0	N I U : 1	10	8	6	4	2
	9	7	5	3	1			2	4	6	8	10
ASU Numbering	12	14	16	18	20	23						
ASU Assignment Sequence for LIS:02	1	5	9	13	17	21	24	20	16	12	8	4
ASU Numbering	24	26	28	30	32	35						
ASU Assignment Sequence for LIS:03	3	7	11	15	19	23	22	18	14	10	6	2
(CP POS)	0	1	1	1	1	1	2	2	2	2	2	3
	8	0	2	4	6	8	0	2	4	6	8	0

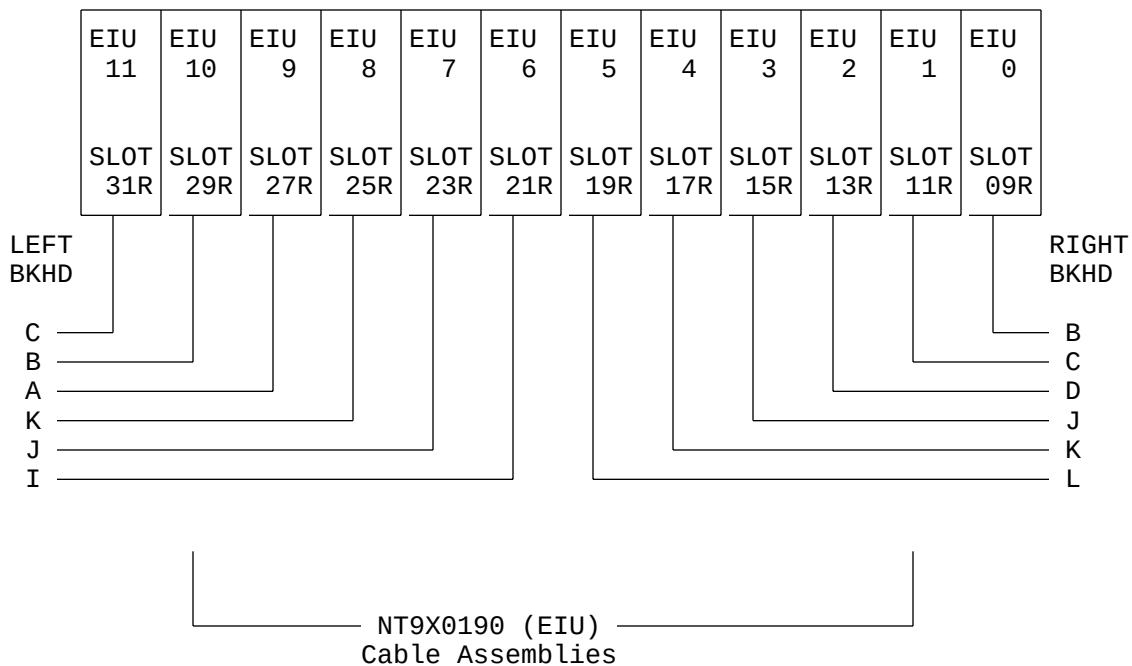
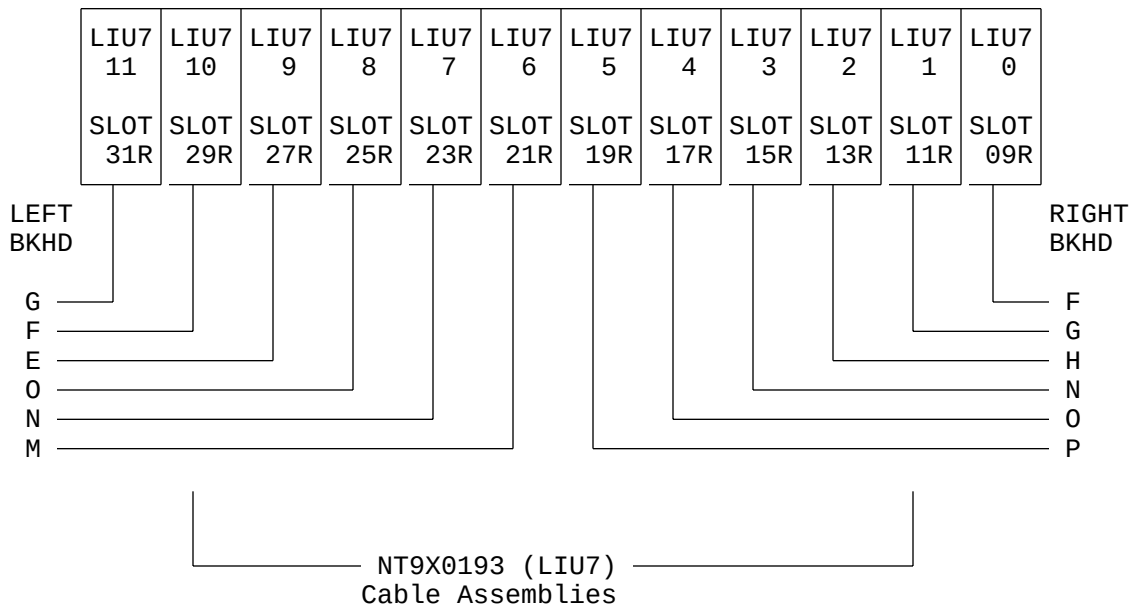
From outside in
<-----
XLIUs
<-----
From inside out

LIUs
<-----

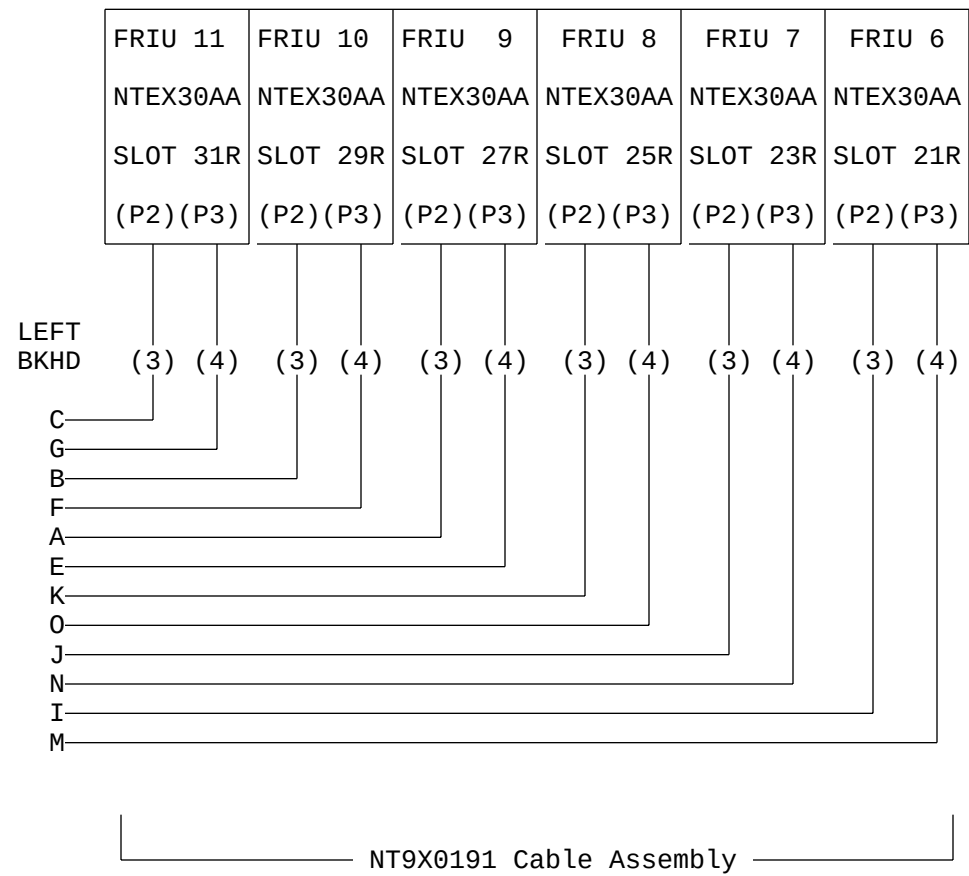
LIUs
<-----

ASSIGNMENT SEQUENCE OF ASUs
TO LINK INTERFACE MODULE
1 SHELF WITH NIUS AND 2 SHELVES WITHOUT NIUS

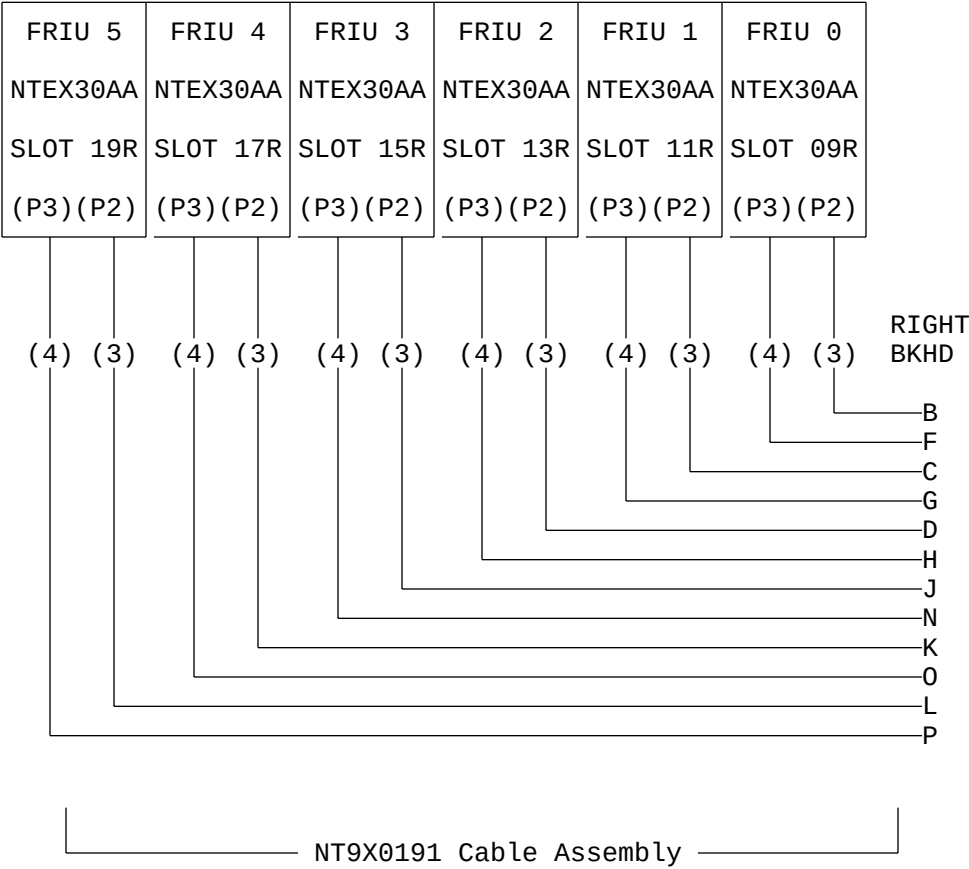
- 4) Following is the rear view of LIS 01, LIS 02, LIS 03 arrangement and cable provisioning:



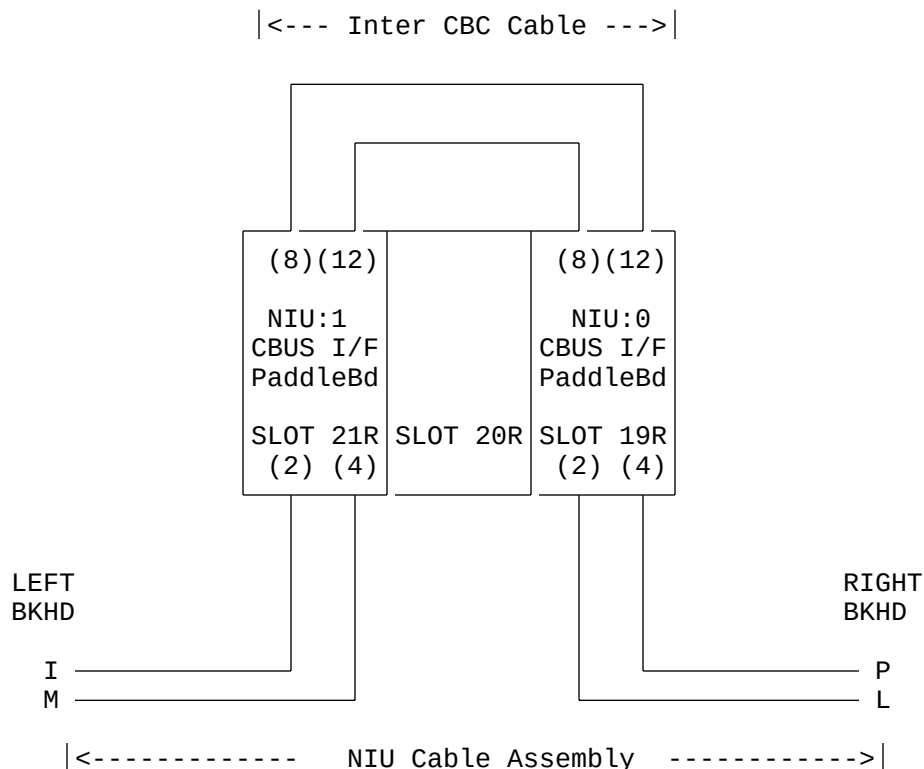
Following is the rear view of LIS 01, LIS 02, LIS 03 arrangement and cable (NT9X0191) provisioning:



P2 and P3 are connector designations while (3) and (4) are the actual markings on the paddleboard. (Shown here for reference only)



Following is the rear view of LIS 01, LIS 02, LIS 03 arrangement and cable provisioning for NIU:



5) For ADAS applications, the following diagrams show ASU mounting positions for standard ADAS configurations. In addition to the ADAS application APUs the quantities of which are provisioned according to expected call traffic, an ADAS system always requires 2 APUs which perform Voice Processing Platform (VPP) overhead functions. These two VPP APUs are always located in the first LPP used for ADAS.

In multi LPP ADAS systems, in the second and subsequent LPPs, in addition to the application APUs which are provisioned according to expected call traffic, 2 APUs, per. LPP are always required for OA&M functions. In the ADAS context, these APUs are referred to as LPP APUs.

The following diagrams illustrate the standard LIS, and ASU configurations used for ADAS. Note that the order of ASU insertion differs from the general rule given in Note 3, above.

The diagrams show the position and order of provisioning of the four types of ASU used by ADAS, i.e. LIU, EIU, APU and VPU. The sequence for each is given separately.

LIUs

In an ADAS LIS, two (2) LIUs are always provided in an ADAS LIS in slot positions 18 and 20.

EIU

An EIU is always provisioned in the first ADAS LIM Cabinet in the topmost ADAS LIS in slot position 30.

APU

The order of APU provisioning is indicated by the prefix 'A', e.g., the fourth APU is indicated by 'A4'.

In general, APU order of provisioning follows the standard configuration sequence, i.e. starts at the topmost shelf at the outermost available slots at the left hand end of the LIS. The next APU is located at the outermost available slots at the right hand end of the LIS below. The third APU is located at the outermost available slots at the left hand end of the lowest LIS, in a LIM with three ADAS LIS. The fourth APU is placed in the topmost LIS in the outermost available slots at the right hand end of the LIS, and so on.

VPU

The order of VPU provisioning is indicated by the prefix 'V', e.g. the fourth VPU is indicated by 'V4'.

In general, VPU order of provisioning follows a non-standard configuration sequence, i.e. the sequence starts at the topmost shelf at the innermost available slots to the left of the NIU(s). The next VPU is located at the innermost available slots to the right of the NIUs below. The third VPU is located at the innermost available slots to the left of the lowest NIUs, in a LIM with three ADAS LIS. The fourth VPU is placed in the topmost LIS in the innermost available slots to the right of the LIUs, and so on.

NOTE:

The method of provisioning, detailed above, and in the following illustrative diagrams differs from configuration rules issued prior to 4/21/95. This means that for extensions to ADAS

systems which were configured to the previously issued rules, the configurations given here may not conform. This can be overcome in one of two ways:

- * Reconfigure existing packs to conform to patterns given in the following diagrams.
- * Configure extension packs to conform as closely as possible to achieve an even spread of APU and VPU among the half LIS (shelves) used for the extension.

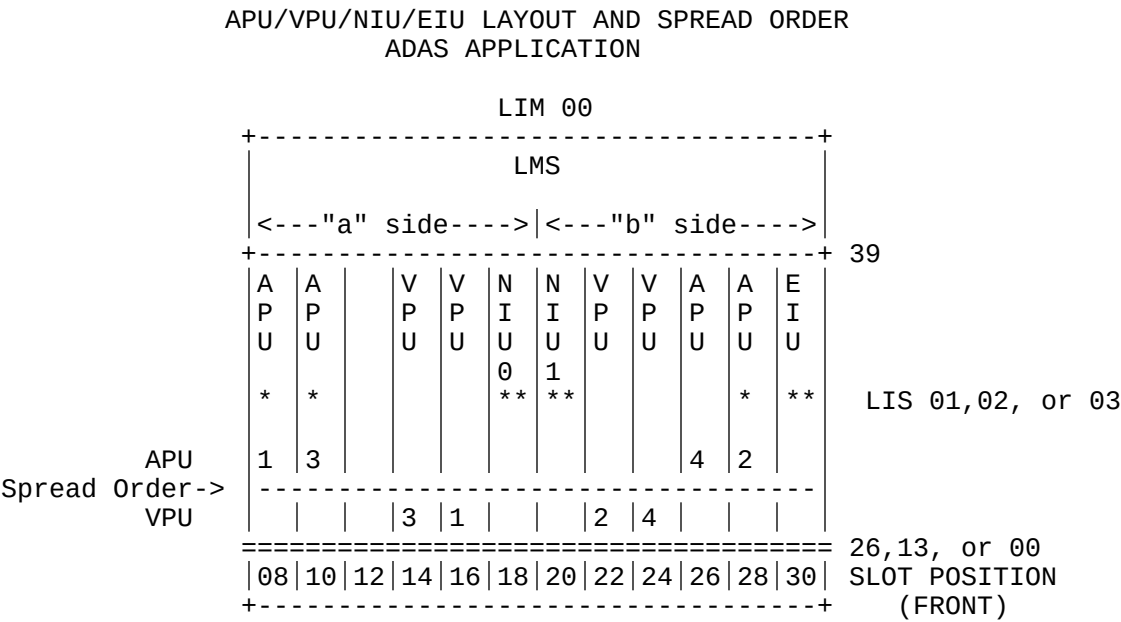
The aim the defined configuration patterns is to provide optimum protection for ADAS services in the event of a failure of common services like power supplies.

Extensions to ADAS systems initially configured according to the patterns defined in the following diagrams can be made in accordance with those patterns.

LIS's used for ADAS cannot be shared with other applications.

ADAS LIS(s) can share the same LPP (not the same LIS shelf) with other applications with the exception of PACKET HANDLER using XLIU's.

HARDWARE LAYOUT ADAS - First LIM with One ADAS LIS

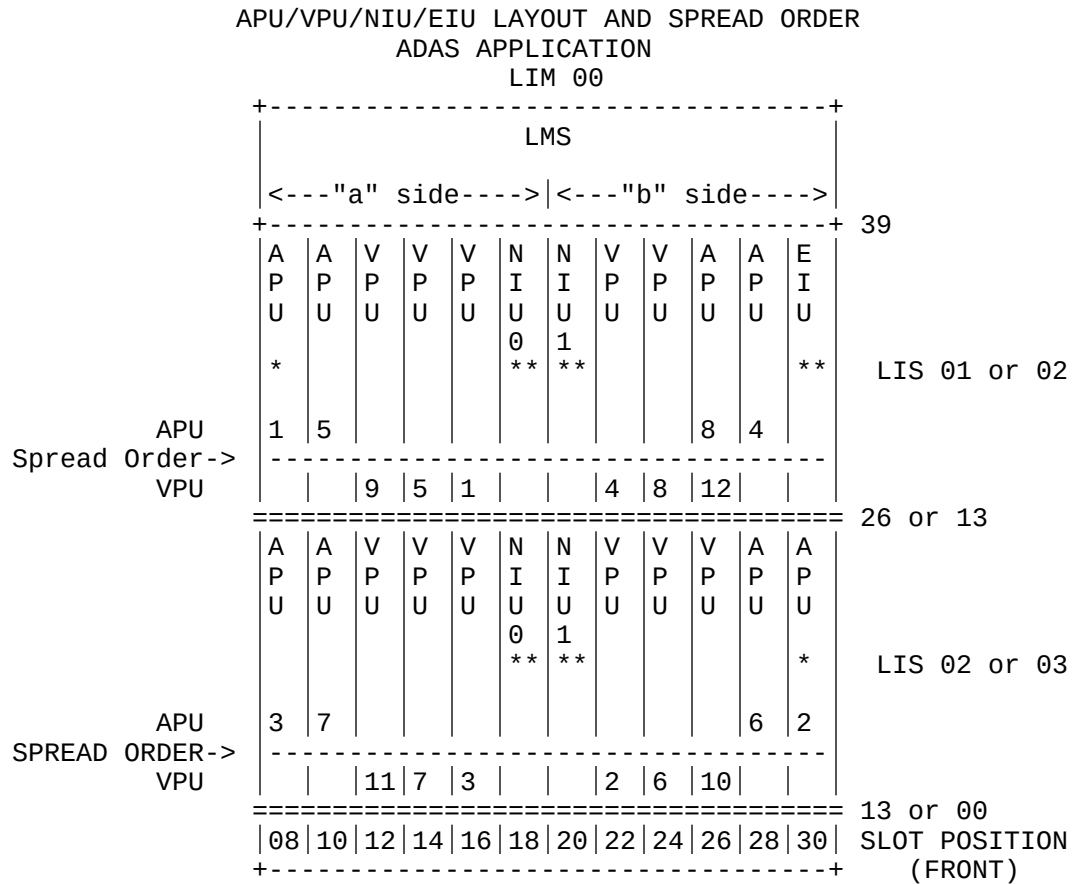


1 LIM and 1 LIS for ADAS

* VPP-APU

** Always provision NIU 0 and 1 on each ADAS LIS
and 1 EIU on 1st ADAS LIS

HARDWARE LAYOUT ADAS - First LIM with Two ADAS LIS



1 LIM and 2 LIS for ADAS

2 LIS mount in sh pos 26 and 13 OR sh 13 and 00

* Always provision APU 1 and 2 for VPP-APU

** Always provision NIU on each ADAS LIS
and 1 EIU on 1st ADAS LIS

HARDWARE LAYOUT ADAS - First LIM with Three ADAS LIS

APU/VPU/NIU/EIU LAYOUT AND SPREAD ORDER
ADAS APPLICATION

LIM 00												
LMS												
<---"a" side--->						<---"b" side--->						
A	A	V	V	V	N	N	V	V	V	A	A	E
P	P	P	P	P	I	I	P	P	P	P	P	I
U	U	U	U	U	U	U	U	U	U	U	U	U
*					0	1						**
1	7				**	**				10	4	
APU Spread Order->												
VPU												
			13	7	1			4	10			
LIS 01												
A	A	V	V	V	N	N	V	V	V	A	A	
P	P	P	P	P	I	I	P	P	P	P	P	
U	U	U	U	U	U	U	U	U	U	U	U	
					0	1						*
5	11				**	**				8	2	
APU SPREAD ORDER->												
VPU												
			16	11	5			2	8	14		
LIS 02												
A	A	V	V	V	N	N	V	V	V		A	
P	P	P	P	P	I	I	P	P	P		P	
U	U	U	U	U	U	U	U	U	U		U	
					0	1						
3	9				**	**					6	
APU Spread Order->												
VPU												
			15	9	3			6	12	17		6
LIS 03												
00												
SLOT POSITION (FRONT)												
08	10	12	14	16	18	20	22	24	26	28	30	

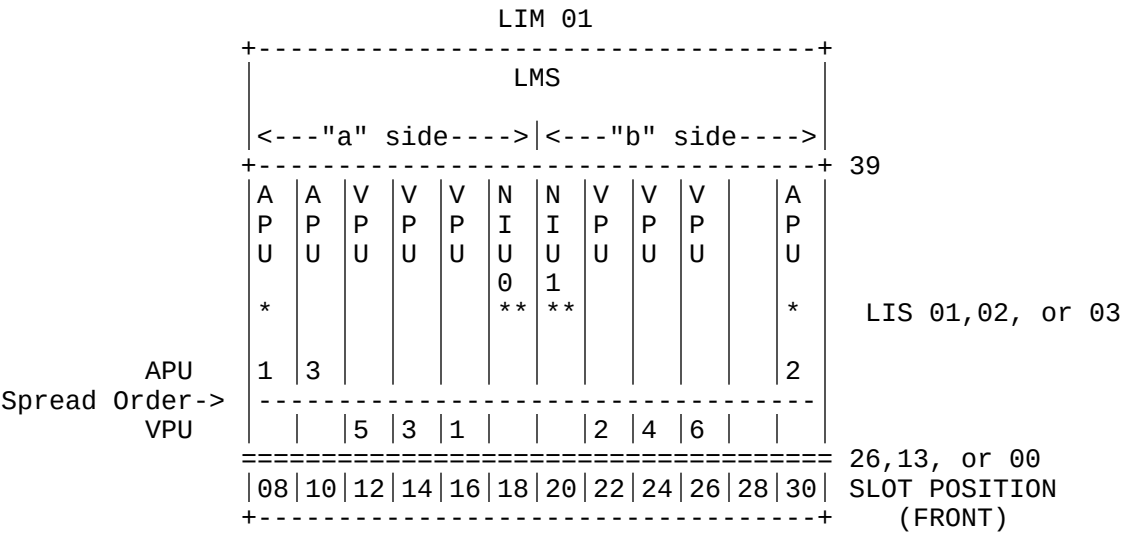
1 LIM and 3 LIS for ADAS

* Always provision APU 1 and 2 for VPP-APU

** Always provision NIU on each ADAS LIS
and 1 EIU on 1st ADAS LIS

HARDWARE LAYOUT ADAS - 1+N LIM with One ADAS LIS

APU/VPU/NIU/EIU LAYOUT AND SPREAD ORDER
1+N ADAS APPLICATION

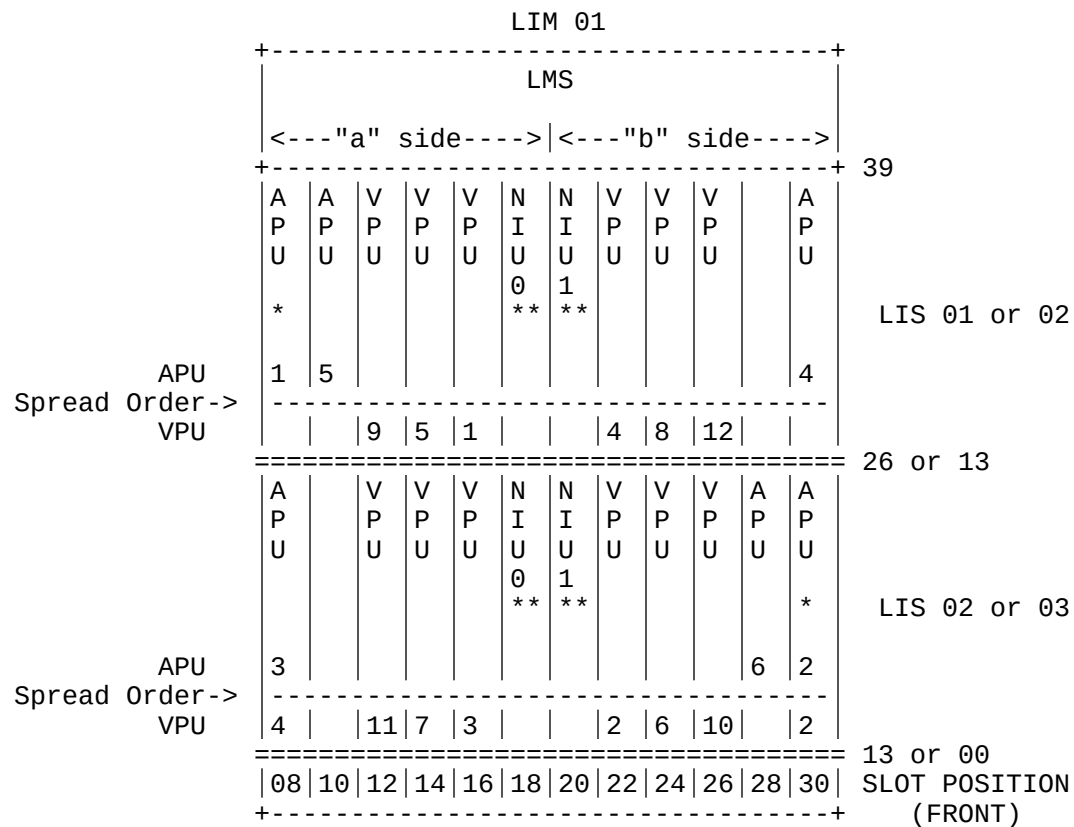


LIM (1+N) (N = 1 or 2) with 1 LIS for ADAS

* Always provision APU 1 and 2 for LPP-APU

** Always provision NIU on each ADAS LIS
(Only EIU is on 1st ADAS LIS)

HARDWARE LAYOUT ADAS - N+1 LIM with Two ADAS LIS

APU/VPU/NIU/EIU LAYOUT AND SPREAD ORDER
1+N ADAS APPLICATION

LIM (1+N) (N = 1 or 2) with 2 LIS for ADAS
 2 LIS mount in sh pos 26 and 13 OR sh 13 and 00
 * Always provision APU 1 and 2 for LPP-APU
 ** Always provision NIU on each ADAS LIS
 (Only EIU is on 1st ADAS LIS)

HARDWARE LAYOUT ADAS - 1+N LIM with Three ADAS LIS

APU/VPU/NIU/EIU LAYOUT AND SPREAD ORDER
1+N ADAS APPLICATION

LIM 01													
LMS													
<---"a" side--->						<---"b" side--->							
A	A	V	V	V	N	N	V	V	V		A		39
P	P	P	P	P	I	I	P	P	P		P		
U	U	U	U	U	U	U	U	U	U		U		
*					0	1							LIS 01
					**	**							
1	7										4		

	1	13	7	1			4	10	16				
=====													26
A		V	V	V	N	N	V	V	V	A	A		
P		P	P	P	I	I	P	P	P	P	P		
U		U	U	U	U	U	U	U	U	U	U		
					0	1					*		LIS 02
					**	**							
5										8	2		

5		17	11	5			2	8	14		2		
=====													13
A	A	V	V	V	N	N	V	V	V		A		
P	P	P	P	P	I	I	P	P	P		P		
U	U	U	U	U	U	U	U	U	U		U		
					0	1							LIS 03
					**	**							
3	9										6		

		15	9	3			6	12	18		6		
=====													00
08	10	12	14	16	18	20	22	24	26	28	30		SLOT POSITION (FRONT)

LIM (1+N) (N = 1 or 2) with 3 LIS for ADAS

* Always provision APU 1 and 2 for LPP-APU

** Always provision NIU on each ADAS LIS
(Only EIU is on 1st ADAS LIS)

- 6) Refer to NT9X95BA(EMA4-07-001) for additional mechanical hardware requirements for C42 Cabinet.
- 7) The Provisionable Frame fail lights NT0X24BT and P0674502 (in Brown) or NT0X24CN and P0699441 (in Grey) have been removed from this document. The new NT9X0105 Black LAMP Bezel will always be provided with the cabinet.

RULES:

- AP 1) When PEC NTZZ44LP is ordered, these items are provided.
- 2) The NT9X95BA contains the NT9X9575 Cabinet Framework.
- The NT9X9575 framework provides earthquake and EMI protection. The framework is 72" high, 28" deep and 42" wide.
- Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42 (S/DMS) Cabinet.
- 3) AP-01: These PEC are always provided on the NT9X70BB and are shown herein for completeness.
- RUL1 1) For each cabinet, provide:
- For 48VDC applications, one (1) NTZZ10CU. This contains
 - one (1) NT9X01AA Frame Super. Panel (-48V), and
 - one (1) NT9X95CU Cooling Unit (-48V).
- (OR)
- For 60VDC applications, one (1) NTZZ10CW. This contain
 - one (1) NT9X03BA Frame Super. Panel (-60V), and
 - one (1) NT9X95GU Cooling Unit (-60V).
- 2) For each LMS shelf, provide one (1) NTZZ44MP DMS-Bus System Clock for offices with software up to and including CSP04.
- (OR)
- 3) For each LMS shelf, provide one (1) NTZZ44NP Enhanced DMS-Bus System Clock for offices with software CSP05 and later. It should be noted that the CSP and STP software release dates are different.
- NOTE: NTZZ44NP can not be deployed on STPs prior to STP03 G2.

4) FOR CSP03 AND ABOVE:

* 16 Meg memory is MANDATORY on all LMS loads.

This is achievable by provisioning NTZZ44PR in all new offices. The NTZZ44PR contains two (2) NT9X13DD and two (2) NT9X26AB RTIF. Note that the NT9X13DB is MD'd and cannot be provisioned to new offices.

5) Existing offices with NT9X13DB, may use NT9X14DB.

If the (1+24) Meg is required using the NT9X13DB combination, provide two (2) NT9X14DB 24Meg Memory CPs.

NOTE: The NTZZ44PR cannot be used with the NT9X14BB (6 Meg) Memory CPs, nor with the NT9X14DB (24 Meg).

- 6) For each LMS shelf, provide when no Memory(NT9X14s) CP is provisioned (in other words, when only NTZZ44PR is provided):
- two (2) NT9X19AA Filler Faceplates,

- RUL2 1) Provide one (8) meg NTZZ30TB for each DS0A SS7 link required. The NTZZ30TB is also used for applications requiring E-DS0A SS7 Links utilizing the Link Fault Sectionalization feature in STP02. Note that the NTZZ30AM and BM are MD'd and replaced by the NTZZ30TB.

(OR)

- 1A) Provide one (1) NTZZ30TC for application requiring 32 Meg memory. This is only to be used in STP Offices until further notice.

- RUL3 1) When interfacing a V.35 signalling link, provide one (1) NTZZ30CN CCS7 8MEG LIU (V.35) - ISG. This can be used for offices requiring ISG compliance.

(OR)

- 1A) Provide one (1) NTZZ30CP for application requiring 32 Meg memory. This is only to be used in STP Offices until further notice.

- RUL4 1) Provide one NTZZ30EC for each Ethernet interface required.

(OR)

- 1A) Provide one (1) NTZZ30ED for application requiring 32 Meg memory. This is only to be used in CDPD application for the Wireless market until further notice.

RUL5 1) For BCS 34 and later, provide one NTZZ30LA for each Frame Relay Service T1 interface required.

- 2) When an existing office reaches BCS 34 and greater the NTZZ30FA must be upgraded to NTZZ30LA. The NTZZ99AK will be used to upgrade the NTZZ30FA to NTZZ30LA.

RUL6 1) Provide two (2) Filler Face Plate and one (1) Filler Paddle Board for each ASU position not assigned to an application.

RUL7 1) Deleted.

RUL8 1) Provide one FRIU, EIU, LIU cable routing label per the half when the FRIU, EIU, LIU is mounted in the half shelf as shown below (except LIUs with CBI, which do not require cables).

- 2) Provide one (1) sheet of NIU cable routing labels per shelf when NIU's(NTZZ30MA) are provisioned in that shelf.

Shelf	Slots	LIU/EIU Label	FRIU Label
26	31R-21R	P0735397	P0714414
26	19R-09R	P0714420	P0714415
13	31R-21R	P0735398	P0714416
13	19R-09R	P0714421	P0714417
00	31R-21R	P0735399	P0714418
00	19R-09R	P0714422	P0714419

RUL9 1) Always Provide one NTZZ34PA, Global +5V Power Converter per each LIS shelf and one LMS shelf in the LPP cabinet in the -48V or in the -60V Powered Installations when Dual Power Redundancy is not required. The NTZZ34PA contains two (2) NT9X30ABS. Also Provide (2) NT9X19EA, Power Filler Face Plates per each LIS shelf.

(OR)

- 2) Provide one NTZZ34PB, Global Redundant Power Converter per each half shelf and only for the LIS shelf, when Dual Power Redundancy is required. This Dual Power converter permit power protection to ASUs without requiring the provisioning

of dual ASUs across multiple half-LIS shelves. Refer to this Functional Block to see what other parts are 'Always Provided(AP)' in it.

- 3) Provide one NTZZ34PB, Global Redundant Power Converter per each half shelf for field upgrades when Dual Power Redundancy is required.

RUL10 1) Provide one (1) NT9X9532 External Power Cabling Interface Kit and one (1) P0736059, Filter Capacitor Designation Label Sheet, when powering the NT9X70BB cabinet from the 7 foot PDC frame or powering from the new CPDC (NTRX31CA) cabinet, or powering from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the different lineup than the NT9X70BB. This kit includes power cables, terminal blocks and miscellaneous mounting hardware.(The Designation Label sheet contains enough labels to fully designate the filter capacitors for one cabinet). A maximum of three (3) Model B Cabinets, including LIM, with external power arrangements may be configured in a single lineup of Model A Cabinets (i.e. in Model B extensions to Model A offices).

- 2) Provide one (1) NT9X9531 Horizontal Power Cabling Interface Kit and one P0736058 Terminal Block Designation strip when powering the NT9X70BB cabinet from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the same lineup as the NT9X70BB. This kit includes power cables, terminal blocks, and miscellaneous mounting hardware. A horizontal power arrangement is used in Cabinetization Model A lineups. The NT9X9531 Horizontal Power Kit may be used when LIM Cabinets are included in a Model A lineup (i.e. Model B extensions to Model A offices).

RUL11 1) Deleted.

RUL12 1) Provide one (1) NT9X0324 ESP Ground Terminator Assembly in all British Telephone offices.

RUL13 1) Provide two (2) NT9X0171, LMS DS-30 X-Link Cable Assembly, per cabinet for NON-RAISED floor applications.
(OR)

- 2) Provide two (2) NT9X7025, LMS DS-30 X-Link Cable Assembly, per cabinet for RAISED floor applications.

- 3) Provide one NTZZ44HA Bulkhead and Cable Assembly for LPPs that are to be located in a Non-Cabinetized DMS office.

(OR)

Provide one NTZZ44JA Bulkhead and Cable Assembly for LPPs that are to be located in a Cabinetized(Streamline) DMS office.

- 4) The NT9X0171 or the NT9X7025 must only be used for Non-Cabinetized offices and must only be used with the NTZZ44HA.

RUL14 1) Deleted.

RUL15 1) Deleted.

RUL16 1) Provide one End Guard Label 000-011 when NT9X70BB Cabinet is ordered. When the office is equipped with 13 or more NT9X70BB Cabinets provide one End Guard Label 012-023.

RUL17 1) Deleted.

RUL18 1) Provide mechanical hardware for the S/DMS Cabinet, such as end guards, frame isolating pads and anchors by using the Engineering Manual Insert:

NT9X95BA - Mechanical Hardware for S/DMS Cabinet

RUL19 1) Reserved for future Use.

RUL20 1) Provide one Bulkhead Connector Cover Plate for each unused connector position on the LIS shelf bulkheads. The number of cover plates required per LIS shelf is equal to:

32 - (#FRIUs on LIS shelf * 2
+ #NIUs on LIS shelf * 4
+ #LIUs on LIS shelf
+ #EIUs on LIS shelf)

- 2) Note that when using XLIU, APU and VPU, they do not require cables and therefore will require coverplates.

RUL21 1) Provide one NTZZ30MA for each Network Interface Unit required. One NIU provides network interface capability for one complete LIS shelf (maximum of ten XLIUs).

(OR)

- 1A) Provide one (1) NTZZ30MB for application requiring 32 Meg memory. This is only to be used in CDPD application for the Wireless market until further notice.

- 2) Provide one NTZZ44DB when an LIU7 with Channel Bus Interface (CBI) capability is required.

(OR)

- 2A) Provide one (1) NTZZ44DC for application requiring 32 Meg memory. This is only to be used in STP offices until further notice. The NTZZ30MA/MB (NIU) must be provided on a LIS shelf for the NTZZ44DB/DC LIU7 CBI to function. Note that NTZZ44DA has been MD'd and replaced by NTZZ44DB.

- 3) Provide one NTZZ44EA when an LIU7 with Integrated Services User Part 48Kb/sec access with Channel Bus Interface (JAPAN ISUP with CBI) capability is required. The NTZZ30MA (NIU) must be provided on a LIS shelf for the NTZZ44EA LIU7 Japan ISUP with CBI to function.

- 4) Provide one NTZZ30MA for each LIS containing ADAS ASUs.

- RUL22
- 1) Provide one NTZZ30NA for each X.25/X.75 Link Interface Unit required. Each DMS Switch can have a maximum of thirty (30) XLIUs, X.25/X.75 Link Interface Unit. However, the configuration of only twenty four (24) XLIUs with 6 NIUs have been verified in the LPP cabinet. (Refer to SEB 92-02-001) For example with 6 NIUs, each shelf in a three shelf LPP, in which all the shelves contain XLIUs, should have exactly 8 XLIUs.

(OR)

- 1A) Provide one (1) NTZZ30NB for application requiring 32 Meg memory. This is only to be used in CDPD application for the Wireless market until further notice.

- RUL23
- 1) For ADAS applications, provide a minimum of two ADAS system APUs, NTZZ44AA, for each LPP used for mounting ADAS. Refer to Note (5) for configuration rules.

- 2) For ADAS applications in addition to the ADAS system APUs, NTZZ44AA, provided according to RUL23 (1), provide two (2) APUs per three (3) VPUs provided. Refer to RUL24 for VPU provisioning rules. Refer to Note (5) for configuration rules.

- RUL24
- 1) For ADAS applications, provide VPUs, NTZZ44BA, as required for expected ADAS call traffic. Refer to ECM 682 for method of VPU provisioning calculation. Refer to Note (5) for configuration rules.

RUL25 1) For EIU applications, provide one Media Access Unit (MAU)
HP28685B (CPC A0383333) for each EIU interface.

NETWORK INTERFACE UNIT

PEC CODE: NTZZ30MA

CPC CODE: B0235032

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: NIU

ENGINEERING DESCRIPTION: The NTZZ30MA Building Block contains the equipment required to provision one complete NIU.

REFERENCE DOCUMENTATION: SLZZ30MA 00 03

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Wireless

ISSUE AUTHOR: NTI: Ganesh Ram Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ganesh Ram Dept. 3471 (PPK)

NTZZ30MA EMB2-16-NIU CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 06 18	ECM 620 04	Introduce NTZZ30MA NIU.
92 10 02	ECM 620 06	Change labels per the latest MS.
95 06 29	ECM 620 28	Solve ET 70803.
97 05 08	ECM 620 35	Include Wireless in the market section

The Network Interface Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Integrated Proc & FBUS I/F	NTEX22BB		1	X	YF	AP
Channel Bus Control Unit:0	NTEX25AA		1	X	Y+1F	AP
DS30 Link I/F Paddleboard	NTEX28AA		1	X	Y+1R	AP
Inter CBC Cable	NT9X7021		1	X	Y+1R	AP
DS30 Cable To Bulkhead	NT9X7020		2	X	Y+1R	AP
Design Label (NIU Unit:0)	P0735918		1	X	YF	AP
Design Label (NTEX28AA)	P0733137		1	X	Y+1R	AP
Integrated Proc & FBUS I/F	NTEX22BB		1	X	Y+2F	AP
Channel Bus Control Unit:1	NTEX25BA		1	X	Y+3F	AP
DS30 Link I/F Paddleboard	NTEX28AA		1	X	Y+3R	AP
Inter CBC Cable	NT9X7021		1	X	Y+3R	AP
DS30 Cable To Bulkhead	NT9X7020		2	X	Y+3R	AP
Design Label (NIU Unit:1)	P0735919		1	X	Y+2F	AP
Design Label (NTEX28AA)	P0733137		1	X	Y+3R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NTZZ30MA can be assigned to shelf mounting positions X = 26, 13, 00. The slot positions are defined by Y = 18. F = Front of shelf, R = Rear of shelf.

RULES:

AP 1) When PEC NTZZ30MA is ordered, these items are provided.

VOICE PROCESSING UNIT

PEC CODE: NTZZ44BA

CPC CODE: B0232997

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: VPU.

ENGINEERING DESCRIPTION: The VPU provides the following voice service resources:

- * Speech Recording
- * Speech playback
- * DTMF Detection

REFERENCE DOCUMENTATION: ADAS Product Specification
MS(ADAS/ISN)
MS(LPP)

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: NTI: James Marsden Dept. 3471 (PPK)

NTZZ44BA EMB2-16-VPU-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 10 04 94 06 30	ECM 682 01 ECM 620 18	Initial issue ECD 018-42107 and ECD 018-42854

The Voice Processing Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
IPF Proc and F-bus I/F	NTEX22BB	PFI	1	X	YF	AP
Recording/Announcement Processor	NTMX97AA	RAP	1	X	YF+1	AP
Designation Label (NTMX97AA)	P0744977		1	X		AP
Multi Channel C-Bus Interface	NTMX99AA	CB1512	1	X	YR+1	AP
Designation Label (NTMX99AA)	P0749722		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = 00,13, or 26
- 2) Y = 08,10,12,14,16,22,24,26,28 or 30

RULES:

- AP 1) When PEC NTZZ44BA is ordered, these items are provided.

ISDN COMMON PERIPHERAL CONTROL MODULE

PEC CODE: NTZZ17GB

CPC CODE: B0234495

RATING: MD

REPLACES: None

REPLACED BY: NTZZ17RM

ABBREVIATION NAME: CPCI

ENGINEERING DESCRIPTION: The NTZZ17GB is the common circuit packfill
for ISDN peripheral controller applications
in the CCPE and CPEI.

REFERENCE DOCUMENTATION: SLZZ17GB 00 02
NTZZ17GB REL 04

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17GB EMB2-18-CPC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 02 25	ECM 673 01	Corrected stocklist of EMS to reflect stocklist of the NT6X02NA & NTZZ17GB.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
96 11 22	ECM 616 45	Per EC 24-96589 MD this building block as the NTB01BA will not work with the MP processors.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17).

The ISDN Common Peripheral Control Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTCI Common CP	NT6X02NA		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01AA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01AA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01AA	P0697918		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01AA	P0697918		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on Streamline CABINETS to shelf mounting positions 47 and 33 and the other to shelf mounting positions 19 and 05. For one module X=05 and for the other module X=33.
- 2) One CPCI Common CP can be assigned on ISDN FRAMES to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

- 3) For more information on the cabinet refer to the section on NTZZ22CA (Section EMAX-XX-XXX).

RULES:

- AP 1) When PEC NTZZ17GB is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN CPCI COMMON PERIPHERAL CONTROL MODULE

PEC CODE: NTZZ17DA

CPC CODE: B0232022

RATING: MD

REPLACES: None

REPLACED BY: NTZZ17TM

ABBREVIATION NAME: CPCI

ENGINEERING DESCRIPTION: The NTZZ17DA is the common circuit packfill for ISDN peripheral controller applications in the CPCE and CPEI which can be used in DWS applications.

REFERENCE DOCUMENTATION: SLZZ17DA 00 01
NTZZ17DA REL 03

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17DA EMB2-18-CPC-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 02 25	ECM 673 01	Introduction of DWS application in the DTCI.
93 04 01	ECM 673 02	Corrected the description; this EMS is for DWS applications, not non-DWS.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
96 11 22	ECM 616 45	Per EC 24-96589 MD this building block as the NTB01BA will not work with the MP processors.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17).

The ISDN CPCI Common Peripheral Control Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTCI Common CP	NT6X02NA		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Enhanced Time Switch CP	NTAX78AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01AA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Enhanced Time Switch CP	NTAX78AA		1	X	14	AP
ISDN Pre-Processor	NTBX01AA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NTAX78AA	P0737140		1	X+14	14	AP
Desig. Label for NTBX01AA	P0697918		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label For NTAX78AA	P0737140		1	X	14	AP
Desig. Label for NTBX01AA	P0697918		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on Streamline CABINETS to shelf mounting positions 47 and 33 and the other to shelf mounting positions 19 and 05. For one module X=05 and for the other module X=33.
- 2) One CPCI Common CP can be assigned on ISDN FRAMES to shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.
- 3) For more information on the cabinet refer to the section on NTZZ22CA (Section EMAX-XX-XXX).

RULES:

- AP 1) When PEC NTZZ17DA is ordered, these items are provided.

AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP,
and is shown here for completeness.

TMS/ETMS LTCI+

PEC CODE: NTZZ17GM

CPC CODE: B0248259

RATING: STD

REPLACES: NONE

REPLACED BY: NOT APPLICABLE

ABBREVIATION NAME: LTCI+

ENGINEERING DESCRIPTION: The NTZZ17GM contains the necessary circuit packfill for one XPM Plus Line Trunk Controller module (for TMS/ETMS applications) equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36 and beyond.

REFERENCE DOCUMENTATION: SLZZ17GM 00 01
NTZZ17GM REL 01

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17GM EMB2-18-CPC-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 01 07	ECM 616 46	Introduce BB NTZZ17GM to address Cdn pricing requirements.
97 03 11	ECM 714 02	Correct qty of NT0X50AA
97 04 23	ECM 714 04	Correct CPC number on cover sheet (per SR RR73681).

The TMS/ETMS LTCI+ is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label for NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label for NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label for NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label for NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label for NT6X69AD	P0800014		1	X	18	AP
Desig. Label for NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ17GM is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ISDN COMMON PERIPH CNTRL COMMON CP

PEC CODE: NTZZ17GJ

CPC CODE: B0241779

RATING: STD

REPLACES: NTZZ17GH

REPLACED BY: NOT APPLICABLE

ABBREVIATION NAME: CPCI+

ENGINEERING DESCRIPTION: The NTZZ17GJ contains the necessary circuit packfill for one ISDN XPM PLUS Line Trunk Controller or Line Group Controller module equipped with NT6X69AD Message Protocol and Tone CPs for BCS-36+ and beyond.

REFERENCE DOCUMENTATION: SLZZ17GJ 00 03
NTZZ17GJ REL 03

MARKETS: Applicable markets:

US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17GJ EMB2-18-CPC-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 10 28	ECM 373 33	Introduce the NTZZ17GJ Building Block.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
95 05 04	ECM 616 34	Update BB with NTB01BA per EC#024-93907.
96 09 20	ECM 616 44	MD BB NTZZ17GJ replaced by either the NTZZ17TV (LGCI) or NTZZ17GL (LTCI).
97 01 07	ECM 616 46	Reinstate BB NTZZ17GJ as it is req'd for US applications. Remove market designation for CANADA. Remove filler plate from position 17 of NT6X02NA.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05

The ISDN COMMON PERIPH CNTRL COMMON CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
Unified Processor CP	NTMX77AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AD		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP-01
Desig. Label for NTMX77AA	P0735417		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AD	P0800014		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP-01
Desig. Label for NTMX77AA	P0735417		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AD	P0800014		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

- AP 1) When PEC NTZZ17GJ is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ENHANCED DIGITAL TRUNK CONTROLLER ISDN (DTCI)

PEC CODE: NTZZ17SU

CPC CODE: B0247645

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: DTCI+

ENGINEERING DESCRIPTION: The NTZZ17SU contains the necessary circuit packs for one ISDN XPM+ Digital Trunk Controller (DTCI) with NTAX74AA and NT6X69AC. For NTAX74AA and NT6X69AD see NTZZ17SV. ("Enhanced because of the NTAX74AA.") The NTAX74AA is not compatible with the NT7X05AA.

REFERENCE DOCUMENTATION: SLZZ17SU 00 01

MARKETS: Applicable markets:

Canada

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17SU EMB2-18-CPC-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 09 20	ECM 616 44	Introduce the NTZZ17SU Building Block with the NTAX74AA and NT6X69AC)
96 11 22	ECM 616 45	Per SRs RR66644 and RR66892 remove filler plate from CP position 17 (this s/b a provisionable position). Corrected ABBR to DTCTI+.
97 01 07	ECM 616 46	Correct engdesc of BB (from LGC to DTC).
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05
97 08 26	ECM 714 06	Update rules per EC 024-98354 to reflect NTAX74AA provisioning restrictions.

The ENHANCED DIGITAL TRUNK CONTROLLER ISDN (DTCI) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPCE Common CP	NT6X02NA		1			AP
Filler Face Plate 0.875	NT0X50AA		4	X+14	8,9, 10,11	AP
MCP-MCS Cellular Processor	NTAX74AA		1	X+14	12	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01BA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X+14	19R	AP
Insertion Guide	P0749586		1	X+14	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		4	X	8,9, 10,11	AP
MCP-MCS Cellular Processor	NTAX74AA		1	X	12	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01BA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
XPM Plus Terminator PB	NTMX71AA		1	X	19R	AP
Insertion Guide	P0749586		1	X	19R	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP01
Speech Bus Formatter	NT6X41AA		1	X	21	AP01
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23,24	AP01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X+14		AP01
Desig. Label for NTAX74AA	P0800860		1	X+14	12	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01BA	P0713794		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X		AP01
Desig. Label for NTAX74AA	P0800860		1	X	12	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP
Desig. Label for NTBX01BA	P0713794		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For frame mounting, X = 18 for one module and X = 51 for the other.
- 2) For cabinet mounting, X = 5 for one module and X = 33 for the other.

RULES:

AP 1) When PEC NTZZ17SU is ordered, these items are provided.

AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

RUL1 This building block can ONLY be provided for DTCI used in MCI ACD applications. It cannot be provided for any other DTCI applications.

D-CHANNEL HANDLER

PEC CODE: NTZZ17BA

CPC CODE: B0232020

| RATING: MD

REPLACES: Not applicable

REPLACED BY: NTZZ17BB

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ17BA block contains the circuit packs required for the D-Channel Handler function.

REFERENCE DOCUMENTATION: SLZZ17BA 00 01
NTZZ17BA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ17BA EMB2-18-DCH-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 94 03 11 96 11 22	----- ECM 683 03 ECM 616 45	Previous history not available ET 45563 Per EC 24-95726 the NTB02AA is MD'd and replaced by the NTB02BS, for a building block already exists (NTZZ17BB).

The D-Channel Handler is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
D-Channel Handler CP	NTBX02AA		1	X	Y	AP
Desig. Label for NTBX02AA	P0697919		1	X	Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) NTZZ17BA is a single-slot block.

2) X = Shelf position occupied in the containing cabinet

3) Y = Slot position occupied in the containing shelf

RULES:

AP 1) When PEC NTZZ17BA is ordered, these items are provided.

ISDN COMMON PERIPHERAL CONTROLLER

PEC CODE: NTZZ17CA

CPC CODE: B0232021

RATING: MD

REPLACES: None

REPLACED BY: NTZZ17RM

ABBREVIATION NAME: CPCI

ENGINEERING DESCRIPTION: The NTZZ17CA is the common circuit packfill
for ISDN peripheral controller applications
on the NT6X01AD frame.

REFERENCE DOCUMENTATION: SLZZ17CA 00 01
NTZZ17CA REL 03

MARKETS: Applicable markets:

Canada
US
CALA

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ17CA EMB2-18-004 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 09 08	ECM 641 01	Introduction of the NT6X01AD frame
93 02 25	ECM 673 01	Change NT0X50AA fillers in slot 13 to AP to the NTZZ17CA.
95 03 22	ECM 616 32	Change NT2X70AE to AF per EC#024-93972.
96 11 22	ECM 616 45	Per EC 24-96589 MD this building block as the NTB01BA will not work with the MP processors.
97 03 11	ECM 714 02	Change quantity of NT0X50AA to match SL6X02NA issue 05 (rem pos 17).

The ISDN Common Peripheral Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTCI Common CP	NT6X02NA		1			AP
XPM Processor CP	NT6X45BA		2	X+14	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X+14	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
ISDN Pre-Processor	NTBX01AB		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X+14	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X+14	19, 23, 24	AP-01
XPM Processor CP	NT6X45BA		2	X	8,12	AP
Filler Face Plate 0.875	NT0X50AA		1	X	09	AP
Mast Proc Memory Plus CP	NT6X47AC		1	X	10	AP
Sig Proc Memory Plus CP	NT6X46BB		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
ISDN Pre-Processor	NTBX01AB		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP-01
Speech Bus Formatter	NT6X41AA		1	X	21	AP-01
Power Conv +/-5 & 12V CP	NT2X70AF		1	X	25	AP
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP
Filler Face Plate 0.875	NT0X50AA		3	X	19, 23, 24	AP-01
Desig. Strip for NT6X02NA	P0700420		1	X+14	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X+14	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X+14	10	AP
Desig. Label For NT6X46BB	P0711664		1	X+14	11	AP
Desig. Label For NT6X44AA	P0698316		1	X+14	14	AP
Desig. Label for NTBX01AB	P0735418		1	X+14	16	AP
Desig. Label For NT6X69AC	P0710476		1	X+14	18	AP
Desig. Label For NT2X70AF	P0809960		1	X+14	25	AP
Desig. Strip for NT6X02NA	P0700420		1	X	1	AP-01
Desig. Label For NT6X45BA	P0665152		2	X	8,12	AP
Desig. Label For NT6X47AC	P0711663		1	X	10	AP
Desig. Label For NT6X46BB	P0711664		1	X	11	AP
Desig. Label For NT6X44AA	P0698316		1	X	14	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label for NTBX01AB	P0735418		1	X	16	AP
Desig. Label For NT6X69AC	P0710476		1	X	18	AP
Desig. Label For NT2X70AF	P0809960		1	X	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One CPCI Common CP can be assigned on NT6X01AD in shelf positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module X=18 and for the other module X=51.

RULES:

- AP 1) When PEC NTZZ17CA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT6X02NA CPCI Common CP, and is shown here for completeness.

ENHANCED D-CHANNEL HANDLER

PEC CODE: NTZZ17BB

CPC CODE: B0236651

RATING: Standard

REPLACES: NTZZ17BA

REPLACED BY: None

ABBREVIATION NAME: EDCH

ENGINEERING DESCRIPTION: The NTZZ17BB Building Block contains the circuit pack required for the Enhanced D-Channel Handler (EDCH) function. When used in peripheral module applications, except TOPS Message Switch (TMS), the EDCH requires BCS-35 as a minimum. For TMS applications the EDCH requires BCS-36 as a minimum.

REFERENCE DOCUMENTATION: SLZZ17BA 00 01
NTZZ17BA REL 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Darrell Deeds Dept. 3471 (PPK)

NTZZ17BB EMB2-19-DCH-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 15	ECM 616 10	Initial Release Of EDCH Engr. Manual Section.
95 01 31	ECM 373 35	Change status, description.
95 02 19	ECM 373 36	Correct typographical error.

The Enhanced D-Channel Handler is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced D-Channel Handler	NTBX02BA		1	X	Y	AP
Desig. Label for NTBX02BA	P0737724		1	X	Y	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTZZ17BB is a single-slot block.

RULES:

- AP 1) When PEC NTZZ17BB is ordered, these items are provided.

ISDN 2B1Q LINE CONCENTRATING MODULE

PEC CODE: NTZZ17HB

CPC CODE: B0241584

RATING: Standard

REPLACES: NTZZ17HA

REPLACED BY: N/A

ABBREVIATION NAME: LCME

ENGINEERING DESCRIPTION: The ISDN 2B1Q Line Concentrating Module houses eight line drawers, each of which supports up to sixty line cards. This module supports the 2B1Q 'U', and POTS (non-ISDN) Line Cards.

REFERENCE DOCUMENTATION: MSZZ17HB 00 01
SLZZ17HB 00 01
NTZZ17HB REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ17HB EMB2-19-LCME-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 02 09	ECM 685 10	New Functional Block. Replaces NTZZ17HA. Created per BB Rat and GMF recommendations, and EC 011-21510.

The ISDN 2B1Q Line Concentrating Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced ISDN LCM Common CP	NTBX31BC	LCME	1	X		AP
LCMI Digroup Control CP	NTBX35AA		2	X+14,X	19	AP-01
LCMI Digroup Control CP	NTBX35AA		2	X+14,X	20	AP-01
LCME Processor CP	NTBX34CB		2	X+14,X	21	AP-01
LCME Power Converter	NT6X53CA		2	X+14,X	22	AP-01
LCME Battery & Ring. Router	NTBX72AA		2	X+14,X	25	AP-01
Designation Label (LCME)	P0744678		2			AP-01
ISDN Enhanced Line Drawer	NTBX32BA		8	X+14, X	1,5 9,13	AP
ISDN Enh. Line Drawer Assy	NTBX3204		8	X+14, X	1,5 9,13	AP-02
ISDN Enh. LCME BIC	NTBX36BA		8	X+14, X	1,5 9,13	AP-02
ISDN Enh. Line Drawer PUPS	NTBX71AA		8	X+14, X	1,5 9,13	AP-02
Line Circuits	AR			X+14,	Note1	RUL1
Line Drawer Cutoff Strap	A0384362				Note1	RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- Each line drawer is divided into two (2) line sub groups. LSG N has 32 slots while LSG N+1 has 28 slots as shown below:

1	3	5	7	9	11	13	15	17	19	21	23	25	27	PUPS	<LSG N+1	
0	2	4	6	8	10	12	14	16	18	20	22	24	26			
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	<LSG N
0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	

For reliability purposes, it is recommended that line cards be distributed over physical drawers. Within a physical drawer, it is recommended that line cards be populated horizontally before being distributed vertically. This is similar to the present LCM provisioning guidelines. (Refer to TABLE C - Line Drawer Provisioning, section EMA14-03-000, for more information).

RULES:

- AP 1) When PEC NTZZ17HB is ordered, these items are provided.
- AP-01 1) Items marked AP-01 are supplied with NTB31BC Enhanced ISDN Common CP and are listed for sparing purposes.
- AP-02 1) Items marked AP-02 are supplied with NTB32BA ISDN Enhanced Line Drawer and are listed for sparing purposes.
- RUL1 1) The following line cards may be assigned to the ISDN Enhanced Line Drawer:

DESCRIPTION	PEC	# OF CARD SLOTS	MAX # PER LINE DRAWER
ISDN 2B1Q 'U' I/F Line Card	NTBX27AA	1	480
ISDN 'S/T' I/F Line Card	NTBX26AA	2	240
Data Line Card	NT6X71AA/AB	2	240
Single Slot Data Line Card	NT6X71BA	1	480
Asynchronous I/F Line Card	NT6X76AA/AC/AD	2	208
Business Set Line Card	NT6X21AC	1	480
POTS Message Waiting	NT6X19AA	1	472 *
Message Waiting Converter LC	NT6X20AA	2	1 *
POTS Line Card	NT6X17AA/AB/AC	1	480
World Line Card Type A	NT6X17BA	1	480
World Line Card Type B	NT6X18BA	1	480

Multiparty Line Card	NT6X18AA/AB	1	480
IBERT	NT6X99AA	2	1 per LCME

- * The POTS Message Waiting cards require one (1) message waiting converter line card NT6X20AA (two slots high) per line drawer to function.

The Multiparty line card cannot be used for coin or ANI.

LCMEs with BCS-31 will support the ISDN lines only. LCMEs with BCS-32 and higher will support all those lines mentioned above.

- 2) Any of the line cards supported can be mixed with any other line cards of a Line Subgroup. However, if there is more than eight (8) S/T-Interface line cards in the same row as POTS line cards, then the POTS line cards will NOT stay in-service on PUPS failure.

The LCME provides flexible Time Division Multiplexing (TDM) groups. This enables an ISDN line to be placed anywhere in a drawer. Any four ISDN lines from the same physical drawer can belong to the same TDM group subject to rule that lines in a particular TDM group must come from the same physical drawer.

- 3) Provision IBERT for data path/ISDN loop testing. Provision only one per LCME.

- RUL2
- 1) Provide one (1) Cutoff Strap for each line drawer whose line cards are to be held simultaneously cutoff by this method.
 - 2) Since straps can be re-used, the quantity to be provided is determined based on the maximum number of line drawers which are to be held simultaneously in this state.

ISDN 2B1Q LINE CONCENTRATING MODULE

PEC CODE: NTZZ17HC

| CPC CODE: B0249696

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: LCME

ENGINEERING DESCRIPTION: The ISDN 2B1Q Line Concentrating Module houses eight line drawers, each of which supports up to sixty line cards. This module supports the 2B1Q 'U', and POTS (non-ISDN) Line Cards.

| REFERENCE DOCUMENTATION: SLZZ17HC 00 01

MARKETS: Applicable markets:

Asia/Pacific

ISSUE AUTHOR: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: Ron Hogan Dept. 3471 (PPK)

NTZZ17HC EMB2-19-LCME-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 11 14	ECM 685 15	Initial release of BB. Contains new NTBX31BD LCME Packfill which is being introduced for International applications (GL03-China) per EC 024-98361.

The ISDN 2B1Q LINE CONCENTRATING MODULE is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LCME Circuit Packfill	NTBX31BD	LCME	1	X		AP
ISDN LCM Digroup Control CP	NTBX35CA		2	X+14,X	19	AP-01
ISDN LCM Digroup Control CP	NTBX35CA		2	X+14,X	20	AP-01
ISDN Enhanced LCM Proc CP	NTBX34CB		2	X+14,X	21	AP-01
ISDN LCME Power Converter CP	NT6X53CA		2	X+14,X	22	AP-01
ISDN LCME Battery & Ringing Router CP	NTBX72AA		2	X+14,X	25	AP-01
Slot Label (ISDN)	P0690637		2			AP-01
NTBX31BD Packfill Des Strip	P0866573		2			AP-01
ISDN Enhanced Line Drawer	NTBX32BA		8	X+14, X	1,5 9,13	AP
ISDN Enh. Line Drawer Assy	NTBX3204		8	X+14, X	1,5 9,13	AP-02
ISDN Enh. LCME BIC	NTBX36BA		8	X+14, X	1,5 9,13	AP-02
ISDN Enh. Line Drawer PUPS	NTBX71AA		8	X+14, X	1,5 9,13	AP-02
Line Circuits	AR			X+14,	Note1	RUL1
Line Drawer Cutoff Strap	A0384362				Note1	RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Each line drawer is divided into two (2) line sub groups. LSG N has 32 slots while LSG N+1 has 28 slots as shown below:

1	3	5	7	9	11	13	15	17	19	21	23	25	27	PUPS	<LSG N+1	
0	2	4	6	8	10	12	14	16	18	20	22	24	26			
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	<LSG N
0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	

For reliability purposes, it is recommended that line cards be distributed over physical drawers. Within a physical drawer, it is recommended that line cards be populated horizontally before being distributed vertically. This is similar to the present LCM provisioning guidelines. (Refer to TABLE C - Line Drawer Provisioning, section EMA14-03-000, for more information).

RULES:

- AP 1) When PEC NTZZ17HC is ordered, these items are provided.
- AP-01 1) Items marked AP-01 are supplied with NTB31BD Enhanced ISDN Common CP and are listed for sparing purposes.
- AP-02 1) Items marked AP-02 are supplied with NTB32BA ISDN Enhanced Line Drawer and are listed for sparing purposes.
- RUL1 1) The following line cards may be assigned to the ISDN Enhanced Line Drawer:

DESCRIPTION	PEC	# OF CARD SLOTS	MAX # PER LINE DRAWER
ISDN 2B1Q 'U' I/F Line Card	NTBX27AA	1	480
ISDN 'S/T' I/F Line Card	NTBX26AA	2	240
Data Line Card	NT6X71AA/AB	2	240
Single Slot Data Line Card	NT6X71BA	1	480
Asynchronous I/F Line Card	NT6X76AA/AC/AD	2	208
Business Set Line Card	NT6X21AC	1	480
Type C Line Card (A-Law)	NT6X21BC	1	480
POTS Message Waiting	NT6X19AA	1	472 *

Message Waiting Converter LC	NT6X20AA	2	1 *
POTS Line Card	NT6X17AA/AB/AC	1	480
World Line Card Type A	NT6X17BA	1	480
World Line Card Type B	NT6X18BA	1	480
Multiparty Line Card	NT6X18AA/AB	1	480
IBERT	NT6X99AA	2	1 per LCME

* The POTS Message Waiting cards require one (1) message waiting converter line card NT6X20AA (two slots high) per line drawer to function.

The Multiparty line card cannot be used for coin or ANI.

LCMEs with BCS-31 will support the ISDN lines only. LCMEs with BCS-32 and higher will support all those lines mentioned above.

- 2) Any of the line cards supported can be mixed with any other line cards of a Line Subgroup. However, if there are more than eight (8) S/T-Interface line cards in the same row as POTS line cards, then the POTS line cards will NOT stay in-service on PUPS failure.

The LCME provides flexible Time Division Multiplexing (TDM) groups. This enables an ISDN line to be placed anywhere in a drawer. Any four ISDN lines from the same physical drawer can belong to the same TDM group subject to rule that lines in a particular TDM group must come from the same physical drawer.

- 3) Provision IBERT for data path/ISDN loop testing. Provision only one per LCME.

- RUL2
- 1) Provide one (1) Cutoff Strap for each line drawer whose line cards are to be held simultaneously cutoff by this method.
 - 2) Since straps can be re-used, the quantity to be provided is determined based on the maximum number of line drawers which are to be held simultaneously in this state.

ISDN LINE CONCENTRATING EQUIPMENT (US/CDN)

PEC CODE: NTZZ17EB

CPC CODE: B0234474

RATING: Standard

REPLACES: NTZZ17JB, NTZZ17PB

REPLACED BY: Not Applicable

ABBREVIATION NAME: LCEI

ENGINEERING DESCRIPTION: The ISDN Line Concentrating Equipment is a standard DMS frame which houses two dual shelf LCMI/LCME modules.

| REFERENCE DOCUMENTATION: MSBX30AB 00 11
SLZZ17EB 00 02
NTZZ17EB REL 03

MARKETS: Applicable markets:

US
Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ17EB EMB2-19-002 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 18	----- ECM 616 09	Previous history not available ECD 018-38694 Add NTEX60AA Prov. Rules ECD 018-39307 The framework NT0X25AV is rated A&M and it is replaced by framework NT0X25AH.
93 07 12	ECM 616 12	Incorporate the following changes: - EC018-40820 - Add the NT6X30CA North American ring generator to the NTRX30BA CLMI and reflect NTB32AA, NTBX31AA, AC, and NTB31AD as MD - Introduce EMS for NTZZ17NA created in API-244 Iss:03 but never included as part of the Engr. Manual. So that the PEC can be MD'ed and replaced by PEC NT6X30CA. This is required because NTZZ17NA is provisionable on NTZZ17EB.
94 03 04	ECM 685 02	ET 18449
94 10 26	ECM 685 05	Add NT6X05AX to NTZZ30AB equip. list per ET 19789.
94 11 23	ECM 685 06	Correct explanation of change for rel 5 of ECM 685 to read "Add NT6X05AX to NTZZ17EB" Per MSBX30AB.
96 02 09	ECM 685 10	Changes per BB Rat and GMF recommend- ations. Replaces NTZZ17PB.
97 03 07	ECM 685 12	Update BB to reflect MD of NTZZ17HA per EC 024-97180.
97 11 14	ECM 685 15	Update NTZZ17EB to include new pack- fill NTB31BD (NTZZ17HC ISDN 2B1Q LCM) and the NT6X30DA (NTZZ41YT) Ring Gen- erator for International applications (GL03-China) per EC 024-98361.

The ISDN Line Concentrating Equipment (US/CDN) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISDN Line Conc Equip Frame	NTBX30AB		1			AP
Universal Framework	NT0X25AH		1			AP
LCEI Frame Supervisory Pnl	NTBX37AB	FSP	1	72		AP-01
Ringing Generator (N.Amer.)	NTZZ41WT			72		RUL4
Ringing Generator (China)	NTZZ41YT			72		RUL4
Ringing Generator Filler	NT6X3005			72		RUL4
Baffle Assembly	NT6X1402		1	67		AP-01
ISDN Line Conc Arr Shf Assy	NTBX3104	LCAI	1	54		AP-01
Line Drawer Filler Plate	NT6X05AX			54	1, 5, 9, 13	RUL5
ISDN Line Conc Arr Shf Assy	NTBX3104	LCAI	1	40		AP-01
ISDN 2B1Q Line Conc Module	NTZZ17HB	LCME		40		RUL1
ISDN 2B1Q Line Conc Module	NTZZ17HC	LCME		40		RUL1
LCMI Filler Face Plate Fill	NTBX31AB			40		RUL1
Line Drawer Filler Plate	NT6X05AX			40	1, 5, 9, 13	RUL5
D.C. Fan Unit	NTBX63AA		1	33		AP-01
ISDN Line Conc Arr Shf Assy	NTBX3104	LCAI	1	19		AP-01
Line Drawer Filler Plate	NT6X05AX			19	1, 5, 9, 13	RUL5
ISDN Line Conc Arr Shf Assy	NTBX3104	LCAI	1	05		AP-01
ISDN 2B1Q Line Conc Module	NTZZ17HB	LCME		05		RUL1
ISDN 2B1Q Line Conc Module	NTZZ17HC	LCME		05		RUL1
LCMI Filler Face Plate Fill	NTBX31AB			05		RUL1
Line Drawer Filler Plate	NT6X05AX			05	1, 5, 9, 13	RUL5
Filler Grille Assy	NTBX3010		1	01		AP-01
Warning Label (French)	P0689450					RUL2
Shelf Pos ID Label	P0707612					RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ17HA	MD	NTZZ17HB

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTZZ17EB is a single bay frame which can be equipped with up to two (2) independent ISDN Line Concentrating Modules.
- 2) One LCME module is composed of two (2) shelves. Each LCME can have up to two LCMEs. One LCME occupies shelf positions 05 and 19 while the other is at positions 40 and 54. The two (2) bare shelf assemblies do not become an LCME till they are equipped with an ISDN Line Concentrating Module. The shelf assembly becomes an ISDN Line Concentrating Array Shelf (LCAI) that houses four (4) Line Drawers. Within each LCME, the lower LCAI is LCAI 0 and the upper LCAI is LCAI 1.
- 3) The Line Drawers within the LCME are numbered from left to right as seen from the front. The Line Sub Groups are numbered as follows:

Frame Shelf Pos.	Line Drawer	Line Sub Group (LSG)
05 or 40	0	00,01,02
05 or 40	1	03,04,05
05 or 40	2	06,07,08
05 or 40	3	09,10,11
19 or 54	4	12,13,14
19 or 54	5	15,16,17
19 or 54	6	18,19,20
19 or 54	7	21,22,23

- 4) The Frame Supervisory Panel, NTB37AB always contains two FSP Alarm CP NT6X36AA.
- 5) Refer to ECM-125 for DMS-Common Equipment (e.g. Frame Doors, Trim Panels, Common Frame Work, etc.) and EMI Hardware.

RULES:

- AP 1) When PEC NTZZ17EB is ordered, these items are provided.
- AP-01 1) Items marked AP-01 are supplied with NTB30AB and are listed for sparing purposes.
- RUL1 1) Provide one (1) NTZZ17HB ISDN 2B1Q Line Concentrating Module for every eight (8) Line Drawers required with 2B1Q 'U' interface compatibility.
- 2) Provide one (1) NTZZ17HC ISDN 2B1Q Line Concentrating Module for each equipped LCME module used in International applications (GL03-China).
- RUL2 1) Provide one (1) P0689450 French Warning Label when required by Canadian customers. This label is to be affixed to the frame FSP.
- RUL3 1) Provide one (1) Shelf Position Identification Label for the Trim Panel, P0707612, for every six (6) LCEI Frames.
- RUL4 1) For POTS on ISDN LCE Frame provide one (1) NTZZ41WT Ringing Generator. If POTS is not required provide two (2) NT6X3005 (Ringing Generator Filler).
- 2) Provide one (1) NTZZ41YT Ringing Generator when analog ringing is required for International applications (GL03-China).
- RUL5 1) For each unequipped line drawer position provide one (1) NT6X05AX Line Drawer Plate.

CIPE COMMON CIRCUIT PACK (48 VDC)

PEC CODE: NTZZ37BA

CPC CODE: B0235222

RATING: STD

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTZZ37BA is the common circuit pack fill used for ISDN peripheral controller modules in International Common Peripheral Equipment frames and cabinets.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Darrell Deeds Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37BA EMB2-20-CP-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 01	API 495 01	ECD 011-17994.
94 05 26	ECM 693 01	Convert API 495 to ECM 693.
95 04 04	ECM 693 08	NT2X70AF replaces NT2X70AE per EC 024-93969.

The CIPE Common Circuit Pack (48 VDC) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	08	AP
4 MB MP Memory CP	NT6X47AC		2	X+14,X	09	AP
Filler Faceplate	NT0X50AA		2	X+14,X	10	AP
SP Memory Plus CP	NT6X46BB		2	X+14,X	11	AP
LGC/DTC Processor CP	NT6X45BA		2	X+14,X	12	AP
Universal Time Switch CP	NT6X44EA		2	X+14,X	14	AP
Msg Prot & Download Tones CP	NT6X69LB		2	X+14,X	18	AP
Channel Supervision Msgs CP	NT6X42AA		2	X+14,X	20	AP
Speech Bus Formatter CP	NT6X41AB		2	X+14,X	21	AP
Filler Faceplate	NT0X50AA		4	X+14,X	23,24	AP
# Power Converter +-5V 50A CP	NT2X70AE		2	X+14,X	25	AP
Power Converter +-5V 50A CP	NT2X70AF		2	X+14,X	25	AP
Desig. Label (NT2X70AF)	P0809960		2	X+14,X	25	AP
Designation Strip	P0741862		2	X+14,X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NTZZ37BA Common CP can be assigned to shelf mounting positions 47 and 33 (X = 33) and another to shelf mounting positions 19 and 05 (X = 05).

RULES:

AP 1) When PEC NTZZ37BA is ordered, these items are provided.

| INTERNATIONAL CDSN COMMON CP

NTZZ37YA

RATING: Limited

ABBREVIATION NAME: CDSN

ENGINEERING DESCRIPTION: The international CDSN common circuit pack includes the circuit packs and associated parts required for a Network Module in the Cabinetized Dual Shelf Network. The network module may be provisioned to be JUNCTORED at the CDNI or NON-JUNCTORED at the CDNI, Non-ISDN, ISDN without Fiber RSC or ISDN with Fiber RSC.

REFERENCE DOCUMENTATION: SLZZ37YA 00 01
NTZZ37YA REL 01

MARKETS: Applicable markets:

CALA
Asai/Pacific
Europe

NTZZ37YA EMB2-20-CP-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available

The International CDSN Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Common CP	NT8X11BB		1			AP
Network Port CP	NT8X12AA		4	X+28,X	01-02	AP
Crosspoint CP	NT8X13BA		2	X+28,X	05	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	06	AP-01
Crosspoint CP	NT8X13BA		2	X+28,X	07	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	08	AP-01
Test Code CP	NT8X14AA		2	X+28,X	09	AP-01
Crosspoint CP	NT8X13BA		2	X+28,X	10	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	11	AP-01
Crosspoint CP	NT8X13BA		2	X+28,X	12	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	13	AP-01
Network Port CP	NT8X12AA		8	X+28,X	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	18	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	20	AP-01
Net Control Proc	NT3X74BB		2	X+28,X	21	AP
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	22	AP-01
Net Clock CP	NT3X76AC		2	X+28,X	23	AP
Filler Face Plate 0.875	NT0X50AA		2	X+28,X	24	AP-01
Power Converter	NT2X70AE		2	X+28,X	25	AP
Desig. Strip for NT8X11AD	P0701589		2	X+28,X		AP-01
Desig. Label for NT8X12AA	P0654992		4	X+28,X	01-02	AP
Desig. Label for NT3X74BB	P0686094		2	X+28,X	21	AP
Desig. Label for NT3X76AC	P0677803		2	X+28,X	23	AP
Desig. Label for NT2X70AE	P0698943		2	X+28,X	25	AP

NOTES:

- 1) X can be 05 or 19.

RULES:

- AP 1) When PEC NTZZ37YA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT8X11BB Network Common CP and is shown here for completeness.

INTERNATIONAL CIOE IOC PACKAGE

PEC CODE: NTZZ37CR

CPC CODE: B0243061

| RATING: STD

| REPLACES: NTZZ37CM

REPLACED BY: Not Applicable

ABBREVIATION NAME: IOC

ENGINEERING DESCRIPTION: The NTZZ37CR Package contains one Input/Output Controller (IOC) Module and associated hardware for mounting in Cabinetized Input/Output Equipment (CIOE), Model A cabinets.

The IOC houses device controller cards each of which has its own subsidiary MAP position.

REFERENCE DOCUMENTATION: SLZZ37CR 00 01

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Ken Clisso Dept. 3471 (RTP)

MAIN CONTACT: Ken Clisso Dept. 3471 (RTP)

NTZZ37CR EMB2-20-IOC-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 04 26	ECM 636 15	Changes per ECD 018-43363. NTZZ37CM is MD'd and replaced with NTZZ37CR. Changes per ECD 024-93969. NT2X70AE is MD'd and replaced with NT2X70AF.

The International CIOE IOC Package is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
I/O Controller Module	NT1X61AG	IOC	1	19		AP
I/O Shelf Assembly	NT1X6113		1	19		AP-01
I/O Message Controller CP	NT1X62CB		1	19	02	AP
Desig. Label for NT1X62CB	P0745105		1	19	02	AP
I/O Control Terminator	NT0X67AA		1	19	22	AP
Designation Strip	P0588099		1	19		AP
I/O Device Controller CP	As Req'd			19	4, 6, 8, 10, 12, 14, 16, 18, 20	RUL1
Filler Face Plate 0.875	NT0X50AA			19	1, 4-21 23-24	RUL2
Power Converter	NT2X70AF		1	19	25	AP
Desig. Label (NT2X70AF)	P0809960		1	19	25	AP
Personality Plate (IOC)	P0726316		1	33		AP
Personality Plate (IOC)	P0726317		1	19		AP
37 Pin Filter Adapter	A0316599		36	19		AP
Mounting Hardware	A0317136		144	19		AP
Mounting Hardware	P0148330		72	19		AP
IOC/Bulkhead Cable	NTRX33FG		2	19		AP
IOC/Bulkhead Cable	NTRX33FH			19		RUL3
IOC/Bulkhead Cable	NTRX33FH		24	19		AP
IOC/Bulkhead Cable	NTRX33FJ		2	19		AP
IOC/Bulkhead Cable	NTRX33FK		2	19		AP
IOC/FSP Cable	NTNX1620		1	19		AP
IOC/FSP Cable	NTNX1621		1	19		AP
Boot	P0743593		8	19		AP
Bolt Cover	P0732389		8	19		AP
Lug	A0292996		3	19		AP
Wiring Option	NTRX33WA			19		RUL4
Wiring Option	NTRX33WB			19		RUL4

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 2) A minimum of two I/O Controller Modules (IOC:00, IOC:01) are required per system.
- 3) The IOC shelf and the devices (MTD, DDU, MAP etc.) it interfaces should be cabled to the same power feed on the Power Distribution Center (PDC).
- 4) One A0316599 37 Pin Filter Adapter, four A0317136, and two P0148330 (mounting hardware) are always provided for each connector position on the IOC personality plates (P0726316/P0726317) as indicated in the table below:

Personality Plate	Shelf	Personality Plate Connector Position
Filter Adapter		
P0726316	IOC	C20 - C39
A0316599		
P0726317		C04 - C19
A0316599		

5) Connect cables as indicated in the table below:

FROM					TO	
CABLES	QTY	SHELF	SHELF POS	CONN	BULKHEAD POSITION	CONN
NTRX33FG	2	IOC	19	C00, C01	19	C00, C01
NTRX33Fh (RUL3)	8			C04-C11		C04-C11
NTRX33FH	24			C12-C19		C12-C19
				C20-C31 C34, C35 C38, C39	33	C20-C31 C34, C35 C38, C39
NTRX33FJ	2			C32, C33		C32, C33
NTRX33FK	2			C36, C37		C36, C37
NTNX1620	1			SCR	FSP (60)	TB1
NTNX1621	1			SCR		TB1

RULES:

- AP 1) When PEC NTZZ37CR is ordered, these items are provided.
- AP-01 1) This item is always provided with NT1X61AG and is shown here for completeness.
- AP-02 1) This item is always provided with NT1X61AE and is shown here for completeness.
- RUL1 1) A minimum of two I/O Controller Modules (IOC:00, IOC:01) are required per system.
- 2) Each shelf accommodates up to nine I/O device controller cards. Refer to EMA14-02-000 for provisioning of the IOC.

- 3) The IOC shelf and the devices (MTD, DDU, MAP etc.) it interfaces should be cabled to the same power feed on the Power Distribution Center (PDC).

RUL2 1) When customer requirements specify that filler face plates are to be ordered, provide for each location which is not to be equipped with an I/O device control card:

- one (1) NT0X50AA

RUL3 1) For each IOC provide:

- eight (8) NTRX33FH IOC/Bulkhead Cables.

Do NOT provide these cables if DPP/MTD or DDU control cards are in slots 4 and/or slot 6 (C04-C07 Slot 4; C08-C11 Slot 6).

RUL4 1) For each NTZZ37CR, provide:

- one (1) NTRX33WA Wiring Option per EVEN numbered CIOE (these leads are required if IOC is "A" feed mounted in position 19 and uses fuse F02 wiring option <WA>) and
- one (1) NTRX33WB Wiring Option per ODD numbered CIOE (these leads are required if IOC is "B" feed mounted in position 19 and uses fuse F04 wiring option <WB>).

INTERNATIONAL CIOE MTD PACKAGE

NTZZ37BM

RATING: Limited

ABBREVIATION NAME: MTD

ENGINEERING DESCRIPTION: The NTZZ37BM Magnetic Tape Drive Package contains a magnetic tape drive, and associated cables and hardware, to mount in Cabinetized Input/Output Equipment (CIOE) for international applications.

REFERENCE DOCUMENTATION: SLZZ37BM 00 01
NTZZ37BM REL 01

MARKETS: Applicable markets:

CALA
Asai/Pacific
Europe

NTZZ37BM EMB2-20-MTD CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available

The International CIOE MTD Package is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Mag Tape Drive Unit (Cook)	NT0X44BB	MTD	1	33		AP
Filler Panel 3 Inch	P0654622		1	57		AP
MTD Cable Assembly 79" Blk	NTRX3320		1	33		AP
MTD Cable Assembly 79" Red	NTRX3321		1	33		AP

NOTES:

- 1) An MTD mounted in position 33 occupies mounting position 47 also.
- 2) MTD (NT1X68BC) controller cards can be assigned to only slot 4 or slot 6 of the IOC shelf in the CIOE. The MTD connected to these slots must be inside the same Faraday cage of the CIOE or the adjacent CIOE.

RULES:

- AP 1) When PEC NTZZ37BM is ordered, these items are provided.

STRATUM 2.5 ROS H/W PACKAGE (CIOE)

PEC CODE: NTZZ32HN

CPC CODE: B0246102

RATING: Standard

REPLACES: None

| REPLACED BY: N/A

ABBREVIATION NAME: ROS

ENGINEERING DESCRIPTION: The NTZZ32HN contains the hardware for mounting the Stratum 2.5 Remote Oscillator Shelf (ROS) in Cabinetized Input/Output Equipment (CIOE).

REFERENCE DOCUMENTATION: SLZZ32HN 00 01

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ32HN EMB2-20-ROS-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
96 04 02	ECM 683 22	Create NTZZ32HN functional block.
97 06 24	ECM 613 37	Update title sheet to reflect NTZZ32HN replaced by NTZZ32HP. Correct qty of P098A109.
97 09 03	ECM 613 39	NTZZ32HN will NOT be replaced by NTZZ32HP (updated title sheet accordingly).

The Stratum 2.5 ROS H/W Package (CIOE) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
37 Pin Filter Adapter	A0316599		2	05		AP
Mounting Hardware	A0317136		8	05		AP
Filter Line EMI Feedthru	A0326932		1	05		AP
Stratum/Bulkhead Cable	NT0X9551		6	05		AP
Stratum Interlock Cassy	NTRX3365		1	05		AP
Stratum/Bulkhead Cable	NTRX33EA		1	05		AP
Stratum/Bulkhead Cable	NTRX33EB		1	05		AP
Hex Nut	P0065747		8	05		AP
Mounting Hardware	P0148330		4	05		AP
Flat Washer	P0160739		4	05		AP
Spring Washer Helical	P0183028		4	05		AP
Personality Plate (Stratum)	P0726321		1	05		AP
Bolt Cover	P0732389		8	05		AP
Boot	P0743593		6	05		AP
Boot	P0744811		2	05		AP
External Tooth Lock	P097Y579		8	05		AP
Bolt	P098A109		2	05		AP
Stratum 2.5 Rmt Osc. Shelf (DMS-Core, ISG)	NT3X95BB	ROS	1	05		RUL1
Remote Osc. Shelf Assy	NT3X9507		1	05		AP-01
Osc. (DMS-Core) & I/F CP	NT3X16BB		2	05	01, 15	AP-01
Pwr Conv. (+-5V, +12V, +24V)	NT1X78AA		2	05	06, 20	AP-01
Filler Face Plate 2.62	NT0X50BE		1	05	12	AP-01
Filler Face Plate 1.72	NT0X50BF		3	05	04, 18, 26	AP-01
Desig. Strip (NT3X95BB)	P0699936		1	05		AP-01
Stratum 2.5 Hot Spares CPs	NTZZ09QA		1	05		RUL2
Stratum 2.5 Clock CP	NT3X16BB		2	05	09, 23	AP-02
Design. Label (NT3X16BB)	P0706626		1	05	09, 23	AP-02
Filler Face Plate 2.62	NT0X50BE		2	05	09, 23	RUL2
Stratum/FSP Cable	NTNX1697		2	05		RUL3
Stratum/Bulkhead Cable	NTRX3325		1	05		RUL3
Stratum/Bulkhead Cable	NTRX3326		1	05		RUL3
Cable (DDU/Stratum to FSP)	NT6X0325		2	05		RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One A0316599 37 Pin Filter Adapter, four A0317136 and two P0148330 (mounting hardware) are always provided for each connector position on the Stratum personality plate (P0726321).

RULES:

- AP 1) When PEC NTZZ32HN is ordered, these items are provided.
- AP-01 1) This item is Always Provided (AP) on NT3X95BB and is shown here for completeness.
- AP-02 1) This item is Always Provided on NTZZ09QA and is shown here for completeness.
- RUL1 1) If Stratum 2.5 is requested provide one (1) NT3X95BB.
- RUL2 1) If 'hot' spares are requested by the customer, provide one (1) NTZZ09QA Stratum 2.5 Hot Spares CPs.
- 2) If "hot spares are not requested then provide two (2) filler face plates (NT0X50BE).
- RUL3 1) Provide two (2) NTN1697, one (1) NTRX3325, one (1) NTRX3326, and two (2) NT6X0325 cables if the Stratum 2.5 is to be mounted in Model A cabinet.

INTERNATIONAL CIOE

PEC CODE: NTZZ37AM

CPC CODE: B0235716

| RATING: MD

REPLACES: None

| REPLACED BY: NTZZ47EC

ABBREVIATION NAME: CIOE

ENGINEERING DESCRIPTION: The Cabinetized Input/Output Equipment (CIOE) for international applications houses all the input/output devices, mountable on a frame, that interface the MAP with the DMS machines.

REFERENCE DOCUMENTATION: SLZZ37AM 00 02
MSRX33AA 01 08

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Scott Maggiolo Dept. 3471 (PPK)

MAIN CONTACT: Ken Clisso Dept. 3471 (PPK)

NTZZ37AM EMB2-20-006 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
94 07 22	ECM 561 01	EC 018-42674 Introduces SCSI-DDU that replaces existing DDU and Controller CP. Therefore, show NTZZ37EM as rate change pending.
94 08 12	ECM 636 12	Add MSRX33AA to Reference Documents. NTZZ32HA replaces NTZZ37GM.
94 10 28	ECM 636 13	Update RUL7.
95 04 26	ECM 636 15	Change per ECD 018-43363. NT1X61AD is MD'd and replaced with NT1X61AG.
95 09 11	ECM 636 18	MD Section per EC 024-94859.

The International CIOE is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cabinetized I/O Equipment	NTRX33AA		1			AP
Frame Supervisory Panel	NTNX26MA	FSP	1	60		AP
Terminal Block Cover	P0730668		1	60		RUL12
Latch	P0707195		2	60		RUL12
Terminal Block Hardware	A0368391		2	60		RUL12
Int. CIOE MTD Package	NTZZ37BM	MTD		57		RUL1
Mag Tape Drive Unit (Cook)	NT0X44BB	MTD	1	33		AP-01
# Int. CIOE DDU Package	NTZZ37EM	DDU		05		RUL2
Disk Drive Unit Shelf	NT4X00AF	DDU	1	05		AP-02
Int. CIOE DPP Package	NTZZ37DM	DPP		33		RUL3
Dist. Processor Peripheral	NT8X48AD	DPP	1	33		AP-03
# Int. CIOE IOC Package	NTZZ37CM	IOC		19		RUL4
# I/O Controller Module	NT1X61AD	IOC	1	19		AP-04
Int. CIOE IOC Package	NTZZ37CR	IOC		19		RUL4
I/O Controller Module	NT1X61AG	IOC	1	19		AP-04
Int. CIOE Stratum II ROS Pkg	NTZZ32HA	ROS		05		RUL5
# Int. CIOE Stratum II ROS Pkg	NTZZ37GM	ROS		05		RUL5
Stratum II Rmt Osc. Shelf	NT3X95AB	ROS	1	05		AP-05
Int CIOE Stratum 2.5 ROS Pkg	NTZZ37FM	ROS		05		RUL6
Stratum 2.5 Rmt Osc. Shelf	NT3X95BB	ROS	1	05		AP-06
Filler Panel	NT0X84AA			05		RUL7
Filler Panel	P0575239			33, 47		RUL7
Personality Plate (Blank)	P0715616			47		RUL7
Personality Plate (Blank)	P0726351			05		RUL7
Cooling Unit	NTNX27CA		1	00		AP
CIOE Door Label	P0726708		1			AP
EMI Kit (EMI Doors)	NTRX2516					RUL8
EMI Ready Door Kit	NTRX2513					RUL8
Cable Trough Assembly	NTNX5511					RUL9
Leveling Foot Kit	NTRX2523					RUL10
Wiring Instructions	LWJRX33AA					RUL11
Frame/Logic Gnd Cluster Kit	NTRX2520		1			AP-07

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ37GM NTZZ37EM NTRX33AA NTZZ37CM NT1X61AD	MD STD* A&M MD MD	NTZZ32HA NT1X55FA NTRX33DA NTZZ37CR NT1X61AG

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

* Rate change pending. Check product availability.

NOTES:

RULES:

- AP-01 1) This item is always provided with NTZZ37BM and is shown here for completeness.
- AP-02 1) This item is always provided with NTZZ37EM and is shown here for completeness.
- AP-03 1) This item is always provided with NTZZ37DM and is shown here for completeness.
- AP-04 1) This item is always provided with NTZZ37CR and is shown here for completeness.
- AP-05 1) This item is always provided with NTZZ37GM and NTZZ32HA and is shown here for completeness.
- AP-06 1) This item is always provided with NTZZ37FM and is shown here for completeness.

AP-07 1) This item is always provided with NTRX33AA and is shown here for completeness.

RUL1 1) When a Magnetic tape drive is required, provide:

- one (1) NTZZ37BM Int. CIOE MTD Package.

4) An MTD mounted in position 33 occupies mounting position 47 also.

RUL2 1) In a disk office the Disk Drive Unit Shelf (DDU) replaces the MTD as the office primary mass storage system.

2) When a Disk Drive Unit (DDU) is required, provide:

- one (1) NTZZ37EM Int. CIOE DDU Package
(including NTZZ37EM's provisionable items
such as 1 or 2 NT4X00AG 5.25 228.7 MB DDs).

The NTZZ37EM DDU shelf is to be mounted in CIOE shelf position 05 only.

3) The NTZZ37EM and its Controller CP NT1X55DA are replaced by the SCSI Disk Drive Unit (SCSI-DDU) NT1X55FA which is a circuit pack mounted on the IOC shelf in any of the following nine (9) slot positions: 4, 6, 8, 10, 12, 14, 16, 18 and 20. Refer to TABLE B or T_IOC_BB_CP for provisioning of the SCSI DDU.

For initial jobs, provide the SCSI-DDU NT1X55FA when GA, as the DDU shelf on the CIOE cabinet is no longer provisioned. Refer to SCSI-DDU ECM for software restrictions. For field upgrades, remove the NT1X55DA and neighboring NT0X50AA filler face plate to mount the double size faceplate NT1X55FA circuit pack. The NT1X55FA mounts in the same slot as the NT1X55DA Controller CP. The cables connected to the associated ESDI-DDU and DDU shelf should also be removed.

RUL3 1) The Distributed Processor Peripheral (DPP) will allow remote polling of Automatic Message Accounting (AMA) in the DMS-100F per NTX243AA software package.

2) When a DPP is required, provide:

- one (1) NTZZ37DM Int. CIOE DPP Package
(including NTZZ37DM's provisionable items).

- RUL4 1) A minimum of two I/O Controller Modules (IOC:00, IOC:01) are required per system.
- 2) If provisioned as independent shelves then provide:
- two (2) NTZZ37CR Int. CIOE IOC Package
(including NTZZ37CR's provisionable items).
- Number these shelves IOC:00 and IOC:01.
- 3) Each shelf accommodates up to nine I/O device controller cards.
- 4) For each additional nine I/O Device Controller Cards to be accommodated, provide:
- one (1) NTZZ37CR Int. CIOE IOC Package
(including NTZZ37CR's provisionable items).
- Number these shelves IOC:02 and up.
- 5) The IOC shelf and the devices (MTD, DDU, MAP etc.) it interfaces should be cabled to the same power feed on the Power Distribution Center (PDC).
- 6) MTD/DPP (NT1X68AC) or DDU (NT1X55DA) controller cards can be assigned to only slot 4 or slot 6 of the IOC shelf in the CIOE. The cables from these slots to the bulkhead are not normally provided since the MTD/DDU/DPP are cabled directly to the IOC. While it is not recommended, use of these slots for other devices will require that cables (4 per slot) be provisioned. Therefore, IOC slots 4 and 6 should be reserved for MTD/DPP/DDU controllers if possible. The MTD,DPP or DDU connected to these slots must be inside the same Faraday cage of the CIOE or the adjacent CIOE.
- RUL5 1) When Stratum II feature is required in a DMS-Core ISG office, provide
- one (1) NTZZ32HA CIOE Stratum II ROS Package.
- 2) The formerly provided NTZZ37GM Int. CIOE Stratum II ROS Package has been changed to MD status and replaced by the NTZZ32HA.
- 2) The Remote Oscillator Shelf requires two -48V feeds and two sets of alarm and control signals from the FSP.

- 3) If Stratum II Remote Oscillator Shelf is job provisioned the following rules apply:
 - a) The CIOE cabinet must be adjacent to the SuperNode cabinet.
 - b) The ROS shelf must be powered from the same CPDC as the SuperNode cabinet.
 - 4) The Remote Oscillator Shelf has two backplanes mounted on the same shelf. Backplane "A" is located at slot positions 1 through 14 and backplane "B" is located at slot positions 15 through 27. There is a power converter located at slot 6 for backplane "A" and at position 20 for backplane "B".
 - 5) When ordering this shelf for field installation, provision 5 metres of NT-26CR (R0109836) wire coloured green.
- RUL6
- 1) When Stratum 2.5 feature is required in a DMS-Core ISG office, provide:
 - one (1) NTZZ37FM Int. CIOE Stratum 2.5 ROS Package.
 - 2) The Remote Oscillator Shelf requires two -48V feeds and two sets of alarm and control signals from the FSP.
 - 3) The CIOE must be located within 200 feet of the DMS-Core Message Switch Shelf.
 - 4) The Remote Oscillator Shelf has two backplanes mounted on the same shelf. Backplane 'A' is located at slot positions 1 through 14 and backplane 'B' is located at slot positions 15 through 27. There is a power converter located at slot 6 for backplane 'A' and at position 20 for backplane 'B'.
 - 5) When ordering this shelf for field installations, provide 5 meters of NT-26CR (R0109836) wire coloured green.
- RUL7
- 1) When shelf position 05 is not equipped, provide:
 - one (1) NT0X84AA Filler Panel Assembly, and
 - one (1) P0726351 Blank Personality Plate.
 - 2) When shelf position 33 is not equipped, provide:
 - one (1) P0575239 Filler Panel Assembly.
 - 3) When shelf position 47 is not equipped, provide:

- one (1) P0575239 Filler Panel Assembly, and
 - one (1) P0715616 Blank Personality Plate.
- 4) When shelf position 33 is equipped with NT0X44BB Mag Tape Drive Unit, provide:
- one (1) P0715616 Blank Personality Plate for shelf position 47.
- RUL8 1) For EMI compliant applications, provide for each CIOE:
- one (1) NTRX2516 EMI Kit (EMI Doors).
- 2) For EMI Ready applications, provide for each CIOE:
- one (1) NTRX2513 EMI Ready Door Kit.
- RUL9 1) When overhead cabling is required, provide for each CIOE:
- one (1) NTN5511 Cable Trough Assembly.
- RUL10 1) For Non-Earthquake offices, provide for each CIOE:
- one (1) NTRX2523 Leveling Foot Kit.
- RUL11 1) Provide one LWJRX33AA and one ADRX33AA drawing to assist the installer when provisionable shelves are to be field installed.
- RUL12 1) For each CTME provide per customer requirements:
- one (1) P0730668 Terminal Block Cover,
 - two (2) P0707195 Latches, and
 - two (2) A0368391 Terminal Block Covers.

The above parts must be provisioned for UK markets and may be provisioned on customer request in other markets.

CLASS MODEM RESOURCE (RSC-S)

PEC CODE: NTZZ12UA

CPC CODE: B0235294

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ12UA Module contains the circuit packs required for the CLASS Calling Number Delivery feature when used in the RSC-SONET.

| REFERENCE DOCUMENTATION: SLZZ12UA 00 02

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barry Bond Dept. 3471 (PPK)

NTZZ12UA EMB2-24-CMR-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 05 95 08 29	ECM 617 05 ECM 691 12	Update shelf position. Changed shelf location from 06 to X to allow mounting in other positions when used in different products.

The CLASS Modem Resource (RSC-S) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CLASS Modem Resource CP	NT6X78AB		2	X	05,23	AP
Design Label (NT6X78AB)	P0731980		2	X	05,23	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
N/A		

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

- AP 1) When PEC NTZZ12UA is ordered, these items are provided.

RSC-S COOLING UNIT KIT

PEC CODE: NTZZ12ZM

CPC CODE: B0246906

| RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ12ZM Building Block contains the Cooling Unit and other miscellaneous items that are always required with the NTMX89FA, NTMX89FB, and NTMX89FC RSC-S Model B cabinets.

REFERENCE DOCUMENTATION: SLZZ12ZM REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Scott Maggiolo Dept. 3471 (PPK)

MAIN CONTACT: NTI: Scott Maggiolo Dept. 3471 (PPK)

NTZZ12ZM EMB2-24-RCC-11 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 06 07	ECM 691 16	Created section.

The RSC-S Cooling Unit Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cooling Unit Kit, 10"	NTRX92AA	CU	1	00		AP
Cooling Unit, 10"	NTRX91AA	CU	1	00		AP-01
FPC (-48V CU Power/Alarm)	NTRX54BA		1	61		AP
FPC Label	P0741680		1	61		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTZZ12ZM is ordered, these items are provided.
- 1) Items marked AP-01 are included with NTRX92AA and are shown for sparing purposes.

REMOTE CLUSTER CONTROLLER 2 SHELF
ENHANCED PACKFILL (INTERNATIONAL)

PEC CODE: NTZZ12XP

| CPC CODE: B0248018

RATING: Standard.

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: RCC2

ENGINEERING DESCRIPTION: The RCC2 is the remote office deployment of the Compact Peripheral Module (CPM) family of peripherals for the DMS-100 family. The RCC2 is based on a one (RCC2) or two shelf configuration (RCC2 and EXT) which must be provisioned separately. The RCC2 Shelf (RCC2) supports a Maximum of 54 P-Side Ports, 16 C-Side Ports and Dual RCC2 configurations. This RCC2 packfill supports Provisionable EISPs, which require BCS-35 or greater. This packfill requires either standard NT6X69-- or extended distance NTMX76-- messaging packs, based on office requirements. The NTAX74AA CPM Processor included in this packfill is to be used for the GL03 product and later releases of GL software.

REFERENCE DOCUMENTATION: SLZZ12XP REL 02

MARKETS: Applicable markets:

CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NTI: Mark Sorrell Dept. 3471 (PPK)

NTZZ12XP EMB2-24-RCC-12 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 10 24	ECM 691 17	Created section to allow NTAX74AA CPM Processor provisionality in the International RCC2 per EC 024-97137. MD NTMX74AA and replaced by NTMX74AB per EC 018-49903.
97 05 02	ECM 691 21	

The REMOTE CLUSTER CONTROLLER 2 SHELF ENHANCED PACKFILL (INTERNATIONAL) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NTMX72AA		2	X	1-2, 26-27	AP
CPM Processor	NTAX74AA		2	X	3,25	AP
Desig. Label (NTAX74AA)	P0800860		2	X	3,25	AP
Enhanced Matrix CP	NTMX75AA		2	X	10,18	AP
PCM Signaling Processor	NTMX73AA		2	X	11,17	AP
# DS30A Interface CP	NTMX74AA		2	X	13,15	AP
DS30A Interface CP	NTMX74AB		2	X	13,15	AP
Label for NTMX74AB	P0744677		2	X	13,15	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTM74AA	MD	NTMX74AB

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

- AP 1) When PEC NTZZ12XP is ordered, these items are provided.

REMOTE CLUSTER CONTROLLER 2 SHELF
ENHANCED PACKFILL

PEC CODE: NTZZ12XF

| CPC CODE: B0248862

| RATING: Standard.

| REPLACES: Not Applicable

| REPLACED BY: Not Applicable

ABBREVIATION NAME: RCC2

ENGINEERING DESCRIPTION: The RCC2 is the remote office deployment of the Compact Peripheral Module (CPM) family of peripherals for the DMS-100 family. The RCC2 is based on a one (RCC2) or two shelf configuration (RCC2 and EXT) which must be provisioned separately. The RCC2 Shelf (RCC2) supports a Maximum of 54 P-Side Ports, 16 C-Side Ports and Dual RCC2 configurations. This RCC2 packfill supports Provisionable EISPs, which require BCS-35 or greater. This packfill requires either standard NT6X69-- or extended distance NTMX76-- messaging packs, based on office requirements. The NTAX74AA CPM Processor included in this packfill is to be used for XPM 08 later releases.

REFERENCE DOCUMENTATION: SLZZ12XP REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NTI: Mark Sorrell Dept. 3471 (PPK)

NTZZ12XF EMB2-24-RCC-15 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 05 02	ECM 691 21	Initial release.

The REMOTE CLUSTER CONTROLLER 2 SHELF ENHANCED PACKFILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NTMX72AA		2	X	1-2, 26-27	AP
CPM Processor	NTAX74AA		2	X	3,25	AP
Desig. Label (NTAX74AA)	P0800860		2	X	3,25	AP
Enhanced Matrix CP	NTMX75AA		2	X	10,18	AP
PCM Signaling Processor	NTMX73AA		2	X	11,17	AP
DS30A Interface CP	NTMX74AB		2	X	13,15	AP
Label for NTMX74AB	P0744677		2	X	13,15	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

- AP 1) When PEC NTZZ12XF is ordered, these items are provided.

EXTENSION SHELF RIGHT FILLER KIT

PEC CODE: NTZZ12KA

CPC CODE: B0234073

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The EXT Sh. is a slave extension of the RCC2/CPM2 shelf divided into two functional modules on a single card cage which are provisioned independently of each other. The left side (card slots 1-13) is always connected to the first RCC2/CPM2 provided and the right side (card slots 14-26) is connected to the second RCC2/CPM2 in a Dual or Colocated RSCS or CMVI/MVIE. If the right side is not used it is filled with filler face plates provided in this kit.

REFERENCE DOCUMENTATION: SLZZ12KA 00 04

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ12KA EMB2-24-RCC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 11 27	ECM 639 02	Remove not required Filler NT0X50AC
93 11 05	ECM 617 13	Reinstate required NT0X50ACs.
95 06 22	ECM 576 02	Change NTZZ12KA to work with CPM2 Sh.

The Extension Shelf Right Filler Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplate	NT0X50AC		2		14, 25	AP
Filler Faceplate	NT0X50AA		11		15-24, 26	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ12KA is ordered, these items are provided.

EXTENSION SHELF LEFT FILLER KIT

PEC CODE: NTZZ12WA

CPC CODE: B0235292

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The EXT Sh. is a slave extension of a RCC2 or CPM2 shelf divided into two functional modules on a single card cage which are provisioned independently of each other. The left side (card slots 1-13) is always connected to the first RCC2/CPM2 provided and the right side (card slots 14-26) is connected to the second RCC2/CPM2 in a Dual or Colocated RSCS or CMVI/MVIE. If the left side is not used it is filled with filler face plates provided in this kit.

REFERENCE DOCUMENTATION: SLZZ12WA 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NTZZ12WA EMB2-24-RCC-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 06 22	----- ECM 576 02	Previous history not available Change NTZZ12WA to work with CPM2 Sh.

The Extension Shelf Left Filler Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplate	NT0X50AC		2		02,13	AP
Filler Faceplate	NT0X50AA		11		1,3-12	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ12WA is ordered, these items are provided.

PERIPHERAL LOADER BB
(RSC-S)

PEC CODE: NTZZ02UB

CPC CODE: B0243106

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ02UB provides the NT7X05AA packs and labels to provide support for the fast recovery from lost software load feature in RSC-S applications. The packs may be applied in either slots 5 and 23 or in slots 7 and 21, whichever pair is available.

REFERENCE DOCUMENTATION: SLZZ02UB 00 02

MARKETS: Applicable markets:

US
Canada
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barry Bond Dept. 3471 (PPK)

NTZZ02UB EMB2-24-RCC-31 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 04 95 08 29	ECM 691 09 ECM 691 12	Introduce code for CRSC applications. Changed shelf location from 06 to X to allow mounting in other positions when used in different products. Changed slot position to Y, 28-Y.

The Peripheral Loader BB (RSC-S) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Peripheral Loader CP	NT7X05AA		2	X	Y, 28-Y	AP
Desig. Label (NT7X05AA)	P0808071		2	X	Y, 28-Y	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
N/A		

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The packs and labels are assigned to either slots 5 and 23 OR slots 7 and 21, whichever pair is available. Only one pair of NT7X05AAs (one NTZZ02UB) is assignable to a RCC2 module.
- 2) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

- AP 1) When PEC NTZZ02UB is ordered, these items are provided.

REMOTE CLUSTER CONTROLLER 2 SHELF PACKFILL

PEC CODE: NTZZ12XB

CPC CODE: B0237986

RATING: STD

REPLACES: NTZZ12XM

REPLACED BY: N/A

ABBREVIATION NAME: RCC2

ENGINEERING DESCRIPTION: The RCC2 is the remote office deployment of the Compact Peripheral Module (CPM) family of peripherals for the DMS-100 family. The RCC2 is based on a one (RCC2) or two shelf configuration (RCC2 and EXT) which must be provisioned separately. The RCC2 Shelf (RCC2) supports a Maximum of 54 P-Side Ports, 16 C-Side Ports and Dual RCC2 configurations. This RCC2 packfill supports Provisionable EISPs, which require BCS-35 or greater. This packfill requires either standard NT6X69-- or extended distance NTMX76-- messaging packs, based on office requirements.

REFERENCE DOCUMENTATION: SLZZ12XB REL 05

MARKETS: Applicable markets:

Canada
US
CALA
Europe
Asia/Pacific

ISSUE AUTHOR: NTI: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NTI: Mark Sorrell Dept. 3471 (PPK)

NTZZ12XB EMB2-24-RCC-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 08 17	ECM 617 11	Introduce packfill to support the provisionality of EISP circuit packs. Show NTMX74AA as MD and replaced by NTMX74AB DS30A Interface CP.
94 08 10	ECM 617 16	
94 08 28	ECM 617 17	Remove NTMX74AA and P0738857 from Equipment List. Remove Asia/Pacific and Europe markets.
95 08 29	ECM 691 12	Changed shelf location from 06 to X to allow mounting in other positions when used in different products.
96 04 01	ECM 691 14	Per EC#...-..... change NTMX72AA to NTMX72AB. (EC# TBD)
96 10 24	ECM 691 17	Per GPRD/Design Mgmt decision, and to solve technical issues, change the NTMX72AB back to NTMX72AA.
97 05 02	ECM 691 21	Updated to include international markets.

The Remote Cluster Controller 2 Shelf Packfill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NTMX72AA		2	X	1-2 26-27	AP
Processor	NTMX77AA		2	X	3, 25	AP
Enhanced Matrix CP	NTMX75AA		2	X	10, 18	AP
PCM Signaling Processor	NTMX73AA		2	X	11, 17	AP
DS30A Interface CP	NTMX74AB		2	X	13, 15	AP
Label for NTMX74AB	P0744677		2	X	13, 15	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTMX74AB replaced NTMX74AA.
- 2) Refer to higher level Engineering Manual Sections for product specific shelf positioning (i.e., X value).

RULES:

AP 1) When PEC NTZZ12XB is ordered, these items are provided.

| STANDARD REMOTE MAINTENANCE MODULE (FOR RSC-S) NTZZ12JA

RATING: Limited

ABBREVIATION NAME: RMM

ENGINEERING DESCRIPTION: The Building Block Remote Maintenance Module (RMM) contains a set of signaling, maintenance and service circuits. Included are provisions for the additional maintenance and service circuits commonly required in a remote office.

The RMM is a single shelf service module that supports maintenance and service circuits. It mounts on the Remote Controller Equipment (RCE) frame in shelf positions 65 or 51, the CRSC in position 19 or the CEXT in position 19.

REFERENCE DOCUMENTATION: SLZZ12JA 00 02

The Standard Remote Maintenance Module (for RSC-S) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RMM Common CP	NT6X13AB		1	XX		AP
Design Strip (NT6X13AB)	P0653639		1	XX		AP01
TM Group Codec CP	NT2X59AA		1	XX	01	AP01
RMM Control Card CP	NT6X74AB		1	XX	02	AP01
Line Test Unit Analog CP	NT2X10BA		1	XX	03	AP
Line Test Unit Digital CP	NT2X11BA		1	XX	04	AP
Misc. Scan Card	NT0X10AA		1	XX	05	AP
8x8 Metallic Test Access CP	NT3X09BA		1	XX	06	AP
Inc/Outg Test Trunk CP	NT2X90AD		1	XX	07	AP
Balance Network 9Kft 900ohm	NT2X77AA		1	XX	07R	AP
Inc/Outg Test Trunk CP	NT2X90AD		1	XX	08	AP
Balance Network 9Kft 900ohm	NT2X77AA		1	XX	08R	AP
Inc/Outg Test Trunk CP	NT2X90AD		1	XX	09	AP
Balance Network 9Kft 900ohm	NT2X77AA		1	XX	09R	AP
Inc/Outg Test Trunk CP	NT2X90AD		1	XX	10	AP
Balance Network 9Kft 900ohm	NT2X77AA		1	XX	10R	AP
Inc/Outg Test Trunk CP	NT2X90AD		1	XX	11	AP
Balance Network 9Kft 900ohm	NT2X77AA		1	XX	11R	AP
8x8 Metallic Test Access CP	NT3X09BA		1	XX	12	AP
Signal Distributor CP	NT2X57AA		1	XX	13	AP
Signal Distributor CP	NT2X57AA		1	XX	14	AP
Misc. Scan Card	NT0X10AA		1	XX	15	AP
Multi O/P Pwr Converter	NT2X09AA		1	XX	17	AP01
Filler Face Plate .875	NT0X50AA		1	XX	19	AP01
Power Converter Comm Feat.	NT2X06AB		1	XX	20	AP01

NOTES:

- 1) XX = shelf position 65 or 51 in RSC or 19 in CRSC or CEXT.

RULES:

- AP 1) When PEC NTZZ12JA is ordered, these items are provided.
- AP01 This PEC is Always Provided in the RMM Common CP Fill (NT6X13AB) and is shown here for completeness.

UNIVERSAL TONE RECEIVER (RSC-S)

NTZZ12VA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ12VA Module contains the circuit packs required for the second pair of Universal Tone Receivers for use in the RSC-SONET when required.

REFERENCE DOCUMENTATION: SLZZ12VA 00 01
NTZZ12VA REL 01

MARKETS: Applicable markets:

Canada
US

NTZZ12VA EMB2-24-UTR-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 01 05	----- ECM 617 05	Previous history not available Update shelf positions.

The Universal Tone Receiver (RSC-S) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Receiver	NT6X92BB		2	06	07,21	AP
Desig Label (NT6X92BB)	P0690565		2	06	07,21	AP

NOTES:

RULES:

AP 1) When PEC NTZZ12VA is ordered, these items are provided.

PC KIT FOR FRAME RELAY SERVICE

NTZZ99AK

RATING: Standard

ABBREVIATION NAME: FRIU Change Kit

ENGINEERING DESCRIPTION: The NTZZ99AK Building Block contains the equipment required to upgrade a FRIU from NTZZ30FA to NTZZ30LA

REFERENCE DOCUMENTATION: SLZZ99AK 00 01
NTZZ99AK REL 01

The PC Kit For Frame Relay Service is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
REMOVE	CPU-IPF CP	NTEX22AA		1	X	Y	AP
REMOVE	Frame Relay Access	NTEX31AA		1	X	Y+1	AP
ADD	Enhanced CPU-IPF CP	NTEX22BB		1	X	Y	AP
ADD	Enhanced Frame Relay	NTEX31BA		1	X	Y+1	AP
ADD	FRIU (2 slot) ID	P0735916		1			AP

NOTES:

- 1) Provide minimum one (1) NTZZ99AK Product Change Kit per FRIU when converting a FRIU to Enhanced FRIU

DESCRIPTION	FROM	TO
Frame Relay Service	NTZZ30FA	NTZZ30LA

- 2) When modifying Link Interface Shelves (LIS), X in SHF POS refers to 26, 13, or 00.
- 3) When modifying Link Interface Shelves (LIS), Y in Card Slots refers to 8F, 10F, 12F, 14F, 16F, 18F, 20F, 22F, 24F, 26F, 28F, 30F.

PRODUCT CHANGE KIT
NT6X44AA TO NTAX78AA

PEC CODE: NTZZ99AM

CPC CODE: B0236829

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: CPCI

ENGINEERING DESCRIPTION: The NTZZ99AM Change Kit provides the circuit packs to upgrade one (1) existing NTZZ17CA or NTZZ17GB to an NTZZ17DA or upgrade one existing NTZZ04BA to NTZZ04BB.

REFERENCE DOCUMENTATION: SLZZ99AM 00 01
NTZZ99AM REL 01

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: Charles Maynard Dept. 3471 (PPK)

MAIN CONTACT: NTI: Charles Maynard Dept. 3471 (PPK)

NTZZ99AM EMB2-99-ISDN-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 02 25 93 09 02	----- ECM 673 01 ECM 673 04	Previous history not available Introduction of DWS in ECM 673. Corrected quantities in this EMS. The quantities should be 1 for each line item instead of 2.

The PRODUCT CHANGE KIT NT6X44AA to NTAX78AA is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
REMOVE	Time Switch CP	NT6X44AA		1	X + 14	14	
REMOVE	Time Switch CP	NT6X44AA		1	X	14	
REMOVE	Des Label (NT6X44AA)	P0698316		1	X + 14	14	
REMOVE	Des Label (NT6X44AA)	P0698316		1	X	14	
ADD	Enhanced Time Switch	NTAX78AA		1	X + 14	14	AP
ADD	Enhanced Time Switch	NTAX78AA		1	X	14	AP
ADD	Des Label (NTAX78AA)	P0737140		1	X + 14	14	AP
ADD	Des Label (NTAX78AA)	P0737140		1	X	14	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) XX = Shelf Pos 18 or 51

RULES:

- AP 1) When PEC NTZZ99AM is ordered, these items are provided.

PRODUCT CHANGE KIT
(NTZZ19QA TO QB)

NTZZ99AF

RATING: Standard

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: NTZZ99AF provides the circuit packs required to upgrade the OPM ESA CP Package from NTZZ19QA to NTZZ19QB. The NTZZ19QB is required for all OPMs with ESA (Emergency Stand-Alone) that are going to BCS-33 or later.

REFERENCE DOCUMENTATION: N/A

The Product Change Kit (NTZZ19QA To QB) is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
REMOVE	MP Memory CP	NT6X47AB		1	XX	14	AP
REMOVE	Des Label (NT6X47AB)	P0666374		1	XX	14	AP
ADD	MP Memory Plus CP	NT6X47AC		1	XX	14	AP
ADD	Des Label (NT6X47AC)	P0711663		1	XX	14	AP

NOTES:

- 1) XX = Shelf Pos 05 of OPM Equipment Bay 0 (HIE shelf).

RULES:

- AP 1) When PEC NTZZ99AF is ordered, these items are provided.

XPM PC KIT FOR NT6X02AA

PEC CODE: NTZZ04EA

CPC CODE: B0231756

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ04EA PC Kit Building Block contains hardware required to upgrade DTC/LGC/LTC module from a NT6X02AA module directly to a NT6X02IC/LC/MC module.

REFERENCE DOCUMENTATION: SLZZ04EA 00 01
NTZZ04EA REL 01

MARKETS: Applicable markets:

Canada
CALA
Asia/Pacific
Europe
US

ISSUE AUTHOR: NTI: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barbara Berkley Dept. 3471 (PPK)

NTZZ04EA EMB2-99-XPM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 97 04 01	----- ECM 714 03	Previous history not available Remove NT6X45BB (repl by NT6X45BA) per ECD 024 96698.

The XPM PC KIT For NT6X02AA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
XPM PC Kit	NT6X02ER		1	X		AP
Wiring Kit	NT6X02ZL		1	X		AP
Filler Face Plate	NT0X50AA		1	X+14	09	AP
Master Proc Mem Plus CP	NT6X47AC		1	X+14	10	AP
Signal Proc Mem Plus CP	NT6X46BB		1	X+14	11	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Power Conv +/-5V & 12V CP	NT2X70AE		1	X+14	25	AP
Filler Face Plate	NT0X50AA		1	X	09	AP
Master Proc Mem Plus CP	NT6X47AC		1	X	10	AP
Signal Proc Mem Plus CP	NT6X46BB		1	X	11	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Power Conv +/-5V & 12V CP	NT2X70AE		1	X	25	AP
Des. Strip for NT6X02IC	P0708170		1	X+14		AP-01
Des. Strip for NT6X02LC	P0708171		1	X+14		AP-01
Des. Strip for NT6X02MC	P0708172		1	X+14		AP-01
desig. Label for NT6X47AC	P0711663		1	X+14	10	AP
desig. Label for NT6X46BB	P0711664		1	X+14	11	AP
desig. Label for NT6X69AC	P0710476		1	X+14	18	AP
desig. Label for NT2X70AE	P0698943		1	X+14	25	AP
Des. Strip for NT6X02IC	P0708170		1	X		AP-01
Des. Strip for NT6X02LC	P0708171		1	X		AP-01
Des. Strip for NT6X02MC	P0708172		1	X		AP-01
desig. Label for NT6X47AC	P0711663		1	X	10	AP
desig. Label for NT6X46BB	P0711664		1	X	11	AP
desig. Label for NT6X69AC	P0710476		1	X	18	AP
desig. Label for NT2X70AE	P0698943		1	X	25	AP

NOTE - X = SH Position 18 or 51

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For upgrades provide four (4) NT6X45BA cards in slots 8 and 12 of the upper and lower shelves of the peripheral modules, and provide four P0665152 designation labels.

RULES:

- AP 1) When PEC NTZZ04EA is ordered, these items are provided.
- AP-01 1) This PEC is always provided in the NT6X02ER PC Kit and is shown here for completeness.

XPM PC KIT FOR NT6X02AC

PEC CODE: NTZZ04GA

CPC CODE: B0234112

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ04GA PC Kit Building Block contains hardware required to upgrade a DTC/LGC/LTC module from a NT6X02AC module directly to a NT6X02IC/LC/MC module.

REFERENCE DOCUMENTATION: SLZZ04GA 00 01
NTZZ04GA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Barbara Berkley Dept. 3471 (PPK)

MAIN CONTACT: Barbara Berkley Dept. 3471 (PPK)

NTZZ04GA EMB2-99-XPM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 97 04 01	----- ECM 714 03	Previous history not available Remove NT6X45BB (repl by NT6X45BA) per ECD 024 96698.

The XPM PC KIT for NT6X02AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
XPM PC Kit	NT6X02ER		1	X		AP
Wiring Kit	NT6X02ZL		1	X		AP
Filler Face Plate	NT0X50AA		1	X+14	09	AP
Master Proc Mem Plus CP	NT6X47AC		1	X+14	10	AP
Signal Proc Mem Plus CP	NT6X46BB		1	X+14	11	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X+14	18	AP
Filler Face Plate	NT0X50AA		1	X	09	AP
Master Proc Mem Plus CP	NT6X47AC		1	X	10	AP
Signal Proc Mem Plus CP	NT6X46BB		1	X	11	AP
CPP Msg Protocol & Tone CP	NT6X69AC		1	X	18	AP
Des. Strip for NT6X02IC	P0708170		1	X+14	1	AP-01
Des. Strip for NT6X02LC	P0708171		1	X+14	1	AP-01
Des. Strip for NT6X02MC	P0708172		1	X+14	1	AP-01
desig. Label for NT6X47AC	P0711663		1	X+14	10	AP
desig. Label for NT6X46BB	P0711664		1	X+14	11	AP
desig. Label for NT6X69AC	P0710476		1	X+14	18	AP
Des. Strip for NT6X02IC	P0708170		1	X	1	AP-01
Des. Strip for NT6X02LC	P0708171		1	X	1	AP-01
Des. Strip for NT6X02MC	P0708172		1	X	1	AP-01
desig. Label for NT6X47AC	P0711663		1	X	10	AP
desig. Label for NT6X46BB	P0711664		1	X	11	AP
desig. Label for NT6X69AC	P0710476		1	X	18	AP

NOTE - X = SH Position 18 or 51

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For upgrades provide four (4) NT6X45BA cards in slots 8 and 12 of the upper and lower shelves of the peripheral modules, and provide four P0665152 designation labels.

RULES:

- AP 1) When PEC NTZZ04GA is ordered, these items are provided.
- AP-01 1) This PEC is always provided in the NT6X02ER PC Kit and is shown here for completeness.

XPM TO XPM PLUS PRODUCT CHANGE KIT
(WITHOUT STRAPS)

PEC CODE: NTZZ99AN

CPC CODE: B0238318

RATING: Standard

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This Building Block provides the material and instructions necessary to upgrade one existing LGC, LTC, DTC, SMS, SMU, SMS-R, LGCI, LTCI, DTCI, or SMUI Module to provide the enhanced capacity Unified Processor (XPM+).

REFERENCE DOCUMENTATION: MS6X01AD 00 19

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI Steve Martin Dept. 3471 (PPK)

NTZZ99AN EMB2-99-XPM-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 22	ECM 678 01	Introduce NTZZ99AN XPM PLUS Change Kit
93 06 02	ECM 678 03	Revise provisioning per EC 011-18238.
93 09 08	ECM 678 05	Change format.
94 03 01	ECM 678 10	Add application on SCMs.
94 05 20	ECM 373 27	EC 24-92162 adds one P0749586 for each NTMX71AA.
95 02 10	ECM 616 29	Add DTCI, LGCI, LTCI, SMUI to application note.
95 04 12	ECM 373 39	NTBX01BA replaces NTBX01AA,if present.

The XPM to XPM PLUS Product Change Kit (Without straps) is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
REMOVE	XPM Processor CP	NT6X45--		2	X,X+14	8	RUL2
REMOVE	MP Memory Plus CP	NT6X47--		2	X,X+14	9	RUL2
REMOVE	MP Memory Plus CP	NT6X47--		2	X,X+14	10	RUL2
REMOVE	Signaling Processor	NT6X46--		2	X,X+14	11	RUL2
REMOVE	XPM Processor CP	NT6X45--		2	X,X+14	12	RUL2
REMOVE	ISDN Signal Pre-proc	NTBX01AA		2	X,X+14	16	RUL3
ADD	Unified Processor	NTMX77AA		2	X,X+14	12	AP
ADD	NTMX77AA Label	P0735417		2	X,X+14	12	AP
ADD	Termination CP	NTMX71AA		2	X,X+14	19R	AP
ADD	Insertion Guide	P0749586		2	X,X+14	19R	AP
ADD	ISDN Signal Pre-proc	NTBX01BA		2	X,X+14	16	RUL3
ADD	NTBX01BA Label	P0713794		2	X,X+14	16	RUL3
ADD	Filler Faceplate	NT0X50AA		AR	X,X+14	8-11	RUL1
ADD	NT0X50AA Label	P0578498		AR	X,X+14	8-11	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
N/A		

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) ON CABINETIZED COMMON PERIPHERAL EQUIPMENT

For CCPE (cabinet) mounting, X = 5 for one module and X = 33 for the other.

2) ON COMMON PERIPHERAL EQUIPMENT FRAME

For CPE (frame) mounting, X = 18 for one module and X = 51 for the other.

RULES:

AP 1) When PEC NTZZ99AN is ordered, these items are provided.

RUL1 1) Provide NT0X50AA Filler Faceplates, with P0578498 Designation Labels, as required to occupy all unequipped slots. The number of filler faceplates required may vary depending on the module configuration at the time of the upgrade.

RUL2 1) The exact part number of these packs may vary depending on the module configuration at the time of the upgrade.

RUL3 1) When this kit is applied to an ISDN module equipped with NTB01AA ISDN Signaling Pre-processor CPS, provide two NTB01BA Enhanced ISDN Signaling Pre-processor CPS, with two P0713794 Designation Labels, to replace the NTB01AA CPS.

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EMB3

DIGITAL NETWORK SUBSYSTEM CHAPTER ALL

DIGITAL NETWORK SUBSYSTEM CHAPTER ALL

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DIGITAL NETWORK SUBSYSTEM CHAPTER ALL

EMB3-01-CLK-2	NET CLOCK INTERFACE SUPERNODE	NTZZ07DA
EMB3-01-NET-1	DOUBLE SHELF NETWORK	NTZZ07BA
EMB3-01-NET-10	ENET IN C42 (S/DMS) CABINET	NTZZ10LC
EMB3-01-NET-2	DSN COMMON CP	NTZZ07 NTZZ07NA
EMB3-01-NET-3	DOUBLE SHELF NETWORK W/O NETWORK PORTS	NTZZ07QA
EMB3-01-NET-4	INTERNATIONAL DOUBLE SHELF NETWORK	NTZZ41PA
EMB3-01-PORT-1	NETWORK PORT CP	NTZZ07 NTZZ07MA
EMB3-01-000	DOUBLE SHELF NETWORK EQUIPMENT FRAME	NTZZ07AA
EMB3-01-001	CABINETIZED DUAL SHELF NETWORK (MODEL B	NTZZ47FA
EMB3-01-701	REFURBISHED DSNE	NTZZ07AD
EMB3-01-711	REFURBISHED DSN MODULE	NTZZ07AG
EMB3-01-721	DSN FACEPLATES	NTZZ07AH
EMB3-02-000	SPEECH LINK CONNECTING FRAME	NTZZ21AA
EMB3-03-000	DIGITAL NETWORK CONNECTING FRAME	NTZZ20AA
EMB3-05-BKH-1	48 DS-30 BULKHEAD ASSEMBLY	NTZZ10DA
EMB3-05-BKH-2	112 DS-30 BULKHEAD ASSEMBLY	NTZZ10EA
EMB3-05-BKH-3	FIBER BULKHEAD ASSEMBLY	NTZZ10FA
EMB3-05-BKH-4	STREAMLINE BULKHEAD ASSEMBLY	NTZZ10PA
EMB3-05-IF-2	QUAD DS-512 FIBER I/F PB	NTZZ10HA
EMB3-05-IF-3	3 DS-512/16 DS-30 ENET I/F PB	NTZZ10MA
EMB3-05-XPT-1	16K X 16K CHAN TERM XPT CP	NTZZ10JA
EMB3-05-XPT-2	16K X 16K CHAN XPT CP	NTZZ10KA
EMB3-06-006	64K ENHANCED NETWORK	NTZZ10NC
EMB3-06-007	ENHANCED NETWORK SHELF ASSEMBLY PACKAGE	NTZZ10BC
EMB3-06-008	C42 FSP AND COOLING UNIT (-48V)	NTZZ10CU
EMB3-06-009	C42 FSP AND COOLING UNIT (-60V)	NTZZ10CW
EMB3-06-011	ENET 16M CPU	NTZZ10CD

97/12/09

EMB3

DIGITAL NETWORK SUBSYSTEM CHAPTER ALL

NET CLOCK INTERFACE SUPERNODE

NTZZ07DA

RATING: Standard

ABBREVIATION NAME: NTZZ07DA

ENGINEERING DESCRIPTION: NTZZ07DA contains the circuit packs required for the SuperNode interface to the Double Shelf Network (DSNE).

REFERENCE DOCUMENTATION:	SLZZ07DA 00 01
	NTZZ07DA REL 01

The Net Clock Interface SuperNode is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Net Clock I/F (SuperNode)	NT3X76AC		1	X	23	AP
Net Clock I/F (SuperNode)	NT3X76AC		1	X+33	23	AP
Desig Label (NT3X76AC)	P0677803		1	X	23	AP
Desig Label (NT3X76AC)	P0677803		1	X+33	23	AP

NOTES:

- 1) NTZZ07DA SuperNode Net Clock Circuit Packs can be assigned to card slots where shelf mounting position X= 18 and the other where shelf mounting position X= 32.

RULES:

- AP 1) When PEC NTZZ07DA is ordered, these items are provided.

DOUBLE SHELF NETWORK

PEC CODE: NTZZ07BA

CPC CODE: B0231758

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DSNE

ENGINEERING DESCRIPTION: Network Common Circuit Packs for Double Shelf Network Equipment Frame NTZZ07AA.

REFERENCE DOCUMENTATION: SLZZ07BA

NTZZ07BA

MARKETS: Applicable markets:

Wireless

| ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

| MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NTZZ07BA EMB3-01-NET-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 04 25	----- ECM 492 19	Previous history not available JEL: EC 018-45164 replaces the NT2X70AE with the NT2X70AF.

The Double Shelf Network is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Common CP	NT8X11AD		1			AP
Network Port CP	NT8X12AA		4	X+33	01-04	AP
Crosspoint CP	NT8X13AA		1	X+33	05	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	06	AP-01
Crosspoint CP	NT8X13AA		1	X+33	07	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	08	AP-01
Test Code CP	NT8X14AA		1	X+33	09	AP-01
Crosspoint CP	NT8X13AA		1	X+33	10	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	11	AP-01
Crosspoint CP	NT8X13AA		1	X+33	12	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	13	AP-01
Network Port CP	NT8X12AA		4	X+33	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	18	AP-01
Network P-Side Msg Proc	NT3X75BA		1	X+33	19	AP
Filler Face Plate 0.875	NT0X50AA		1	X+33	20	AP-01
Net Control Proc	NT3X74BB		1	X+33	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X+33	22	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	24	AP-01
# Power Converter	NT2X70AE		1	X+33	25	AP
Power Converter	NT2X70AF		1	X+33	25	AP
Network Port CP	NT8X12AA		4	X	01-04	AP
Crosspoint CP	NT8X13AA		1	X	05	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	06	AP-01
Crosspoint CP	NT8X13AA		1	X	07	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	08	AP-01
Test Code CP	NT8X14AA		1	X	09	AP-01
Crosspoint CP	NT8X13AA		1	X	10	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	11	AP-01
Crosspoint CP	NT8X13AA		1	X	12	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP-01
Network Port CP	NT8X12AA		4	X	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	18	AP-01
Network P-Side Msg Proc	NT3X75BA		1	X	19	AP
Filler Face Plate 0.875	NT0X50AA		1	X	20	AP-01
Net Control Proc	NT3X74BB		1	X	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X	22	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
# Power Converter	NT2X70AE		1	X	25	AP
Power Converter	NT2X70AF		1	X	25	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Strip (NT8X11AD)	P0701589		2			AP-01
Desig. Label for NT8X12AA	P0654992		8		01-04	AP
Desig. Label for NT3X75BA	P0700564		2		19	AP
Desig. Label for NT3X74BB	P0686094		2		21	AP
Desig. Label for NT2X70AF	P0809960		2		25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTZZ07BA is ordered, these items are provided.
- 2) One (1) Network Common Circuit Packs can be assigned on the frame (NTZZ07AA) where shelf mounting position X= 18 and the other where shelf mounting position X= 32.
- AP-01 1) This PEC is always provided on the NT8X11AD Network Common CP, and is shown here for completeness.

ENET IN C42 (S/DMS) CABINET

PEC CODE: NTZZ10LC

CPC CODE: B0245950

RATING: Standard

REPLACES: NTZZ10LA/NTZZ10LB

REPLACED BY: N/A

ABBREVIATION NAME: ENC

ENGINEERING DESCRIPTION: The Enhanced Network in S/DMS Cabinet houses up to 4 Network shelves of one plane. Each shelf provides a nominal Switching capacity of 32 K-channels.

REFERENCE DOCUMENTATION: NTZZ10LC REL 01
SLZZ10LC 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTC: Jerry Palmer DEPT. 3471 (PPK)

MAIN CONTACT: NTC: Jerry Palmer DEPT. 3471 (PPK)

NTZZ10LC EMB3-01-NET-10 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
96 03 18	ECM 627 16	New section to replace NTZZ10LA and NTZZ10LB. Cabinet block for 128K ENET.
96 07 01	ECM 627 17	Correct typo for ENET shelf assy.
96 07 22	ECM 627 18	Correct typos for Power Converter PECs per SR RR6-5927 plus minor typo changes.
96 12 03	ECM 627 20	Add text to rules for PB provisioning and grouped PB together. Added to rul8 (DS30 I/F PB) to show rating change pending per SR RR6B292.
97 02 11	ECM 627 21	MD the ENET processor card NT9X13FA (NTZZ10CC) per EC 018-49539. Clarify Rule 1 for bulkhead provisioning per SR RR70392. Modify Rul1 for Terminal Block Cover; now required for all C42 Cabinets per EC 018-48705.
97 05 19	ECM 627 23	Modify mounting locations for NTZZ34PA, NTZZ34PC, NTZZ10CC and NTZZ10CD to be consistent with CADES requirements, SR RR6A311. MD the DS-30 Interface PB, NT9X41BA (NTZZ10GA) per EC 018-50987.
97 09 25	ECM 627 24	Minor cleanup of section. Change the FSP Terminal Block to AP, it is part of the cabinet stock list, per SR RR79781. Add note to shelf provisioning that Crosspoint cards are required for any shelf that is powered. per PRT

The Enhanced Network in S/DMS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
S/DMS Enhanced Network Cab.	NT9X05AC		1			AP
C42 Cabinet Mechanical Assy	NT9X95BA		1			AP-01
C42 FSP and CU (-48V)	NTZZ10CU	FSP	1	52		RUL15
C42 FSP and CU (-60V)	NTZZ10CW	FSP	1	52		RUL15
Network Shelf Assy	NT9X0818		1	39		AP-01
Global +5V Power Converter	NTZZ34PA		1	39	4F	RUL16
Global -5V Power Converter	NTZZ34PC		1	39	1F	RUL17
# 8M CPU CP	NTZZ10CC		1	39	7F	RUL18
16M CPU CP	NTZZ10CD		1	39	7F	RUL18
Network Clock & Msg CP	NT9X36BA		1	39	8F	AP
Filler Face Plate	NT9X19AA		8	39	17F-24F	AP
16K x 16K Chan Term Xpt CP	NT9X35CA		4	39	9F, 10F, 31F, 32F	AP
Quad DS-512 Fiber I/F PB	NT9X40BB		1	39	8R	AP
PB Filler Face Plate	NT9X19BA		1	39	9R	AP
PB Filler Face Plate	NT9X19BA		8	39	17R-24R	AP
FSP Term Blk Cover Assembly	A0368392			52		AP01
Network Shelf Assy Pkg	NTZZ10BC			00, 13, 26		RUL1
Blank Shelf Assembly	NT0X24BD			00, 13, 26		RUL1
Enhanced Network Shelf Assy	NT9X0818	ENET		00, 13, 26		RUL1
Filler Packfill	NT9X01FB			00, 13, 26		RUL1
Screws & Washers	P097F813			00, 13, 26		RUL1
	P0284154					RUL1
	P0183220					RUL1
16K x 16K Chan Term Xpt CP	NTZZ10JA			00, 13, 26	10F	RUL2
16K x 16K Chan Xpt CP	NTZZ10KA			XX	11-16, 25-30F	RUL2
3 DS-512/16 DS-30 I/F PB	NTZZ10MA			XX	10R-16R 25R-32R	RUL5
Quad DS-512 Fiber I/F PB	NTZZ10HA			XX	10R-16R 25R-32R	RUL4
# DS-30 Interface Assembly	NTZZ10GA			XX	10R-16R 25R-32R	RUL8
Filler Face Plate	NT9X19AA			XX	10F-16F 25F-32F	RUL3
PB Filler Face Plate	NT9X19BA			XX	10R-16R 25R-32R	RUL6
96 DS-30 Bulkhead Assembly	NTZZ10DA			XX		RUL7
224 DS-30 Bulkhead Assembly	NTZZ10EA			XX		RUL7
Fiber Bulkhead Assembly	NTZZ10FA			XX		RUL7
Streamline Bulkhead Assy	NTZZ10PA			XX		RUL7

Active Equipment
ENET in C42 (S/DMS) CABINET

NTZZ10LC
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Terminal Block Des.Strip	P0831447		1			RUL10
Power Filter Label	P0736059		1			RUL10
Front Bottom Shelf Strip (Plane 0)	P0743003		1	39		RUL10
Shelf Strip Rear Top (Plane 0)	P0743005		1	39		RUL10
Rear Bottom Shelf Strip (Plane 0)	P0743009		1	39		RUL10
Front Top Desig. Strip (Plane 0)	P0743011		1	39		RUL10
Rear Shelf Desig. Label	P0704530		1	39		AP
Front Bottom Shelf Strip (Plane 1)	P0743004		1	39		RUL10
Shelf Strip Rear Top (Plane 1)	P0743006		1	39		RUL10
Rear Bottom Shelf Strip (Plane 1)	P0743010		1	39		RUL10
Front Shelf Desig. label (Plane 1) Label	P0743012		1	39		RUL10
Optical Fiber Label (Eng.)	P0736273		1	39		RUL10
Optical Fiber Label (Ger.)	P0737638		1	39		RUL10
Horizontal Power Cab.kit	NT9X9531		1			RUL11
Stand-alone Power Cab. kit	NT9X9532		1			RUL11
ESP Ground Terminator Assy.	NT9X0324		1			RUL12
C42 Cabinet Mechanical Assy	NT9X95BA					NOTE2
Cabinet Cable Turn. Sect.	NT0X35CC					RUL14

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ10CC NTZZ10GA	MD MD	NTZZ10CD NTZZ10MA

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) XX can be one of 00, 13, 26, and 39.
- 2) Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42 Cabinet.

RULES:

- AP 1) When PEC NTZZ10LC is ordered, these items are provided.
- 2) The NT9X95BA contains the NT9X9575 Cabinet Framework.
- The NT9X9575 framework provides earthquake and EMI protection. The framework is 72" high, 28" deep and 42" wide.
- Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42 (S/DMS) Cabinet.
- AP-01 1) This PEC is always provided on the NT9X05AC and is shown herein for completeness.
- RUL1 1) Provide one (1) NTZZ10BC, Network Shelf Assy Pkg, for each additional network shelf required. The first shelf at position 39 is always provided to the cabinet. Assign the NTZZ10BC to positions 26,13, or 00 as required.
- (OR)
- 2) Provide one (1) NT0X24BD Blank Shelf Assy for each unequipped position 26, 13, and 00, to satisfy the forced air cooling requirements of the cabinet, note that no bulkhead provisioning is required,
- (OR)
- 3) Provide one (1) NT9X01FB Filler Packfill per each enhanced network shelf assembly when shelf is not equipped with circuit packs. Note, you require NT9X0818 Network shelf assembly to mount the filler packfill (NT9X01FB) in ENET shelves. Bulkhead provisioning is required when the NT9X0818 shelf assembly is provided or when the shelf is connected to the SuperNode/SNSE. Refer to Rul11 for bulkhead options. Provide four (4) P097F813 screws, one (1) P0284154 washer and one (1) P0183220 locker washer per Enhanced Network shelf assembly.
- 4) A fully equipped cabinet (i.e. four (4) shelves) has the capacity of up to 128K channels. Each shelf provides the switching for speech links interfacing up to 15 I/F PB.
- 5) For all applications, provide (1) FSP Terminal Block Cover Assembly for each ENET Cabinet.
- RUL2 1) Assign the first twelve (12) NTZZ10KA, 16K x 16K Chan Xpt CP, on the first shelf to adjacent slot pairs in the fol-

lowing order: (30F-29F), (12F-11F), (28F-27F), (14F-13F), (26F-25F), (16F-15F).

- 2) In subsequent shelves the Cross point card is assigned as follows: Assign six (6) NTZZ10KA CP's to odd slots 11F, 13F, 15F, 25F, 27F, and 29F. The next group of seven (7) Cross point CP's are assigned as follows: Assign one (1) NTZZ10JA, 16K x 16K Chan Term Xpt CP, to even numbered slots 10F and 32F. Assign six (6) NTZZ10KA CP's to even slots 12F, 14F, 16F, 26F, 28F, and 30F.

- 3) Provide a minimum of two (2) NT9X35CA 16K X 16 K Channel Terminating Crosspoint Cards and a minimum of two (2) NT9X35BA 16K X 16K Channel Crosspoint Cards for the first powered ENET shelf.

Provide a minimum of two (2) NT9X35CA 16K X 16 K Channel Terminating Crosspoint Cards and a minimum of six (6) NT9X35BA 16K X 16K Channel Crosspoint Cards for each subsequent powered ENET shelf.

Note that bulkhead provisioning determines if a new ENET shelf must be provisioned while some slots may be unfilled in the preceding shelf.

- 4) Assign the CP's on each additional shelf as per 2) above. Fill each shelf before starting the next.

RUL3 1) Provide one (1) NT9X19AA, CP Filler Face Plate in each slot not equipped with a Circuit Pack to satisfy forced air cooling requirements of the cabinet.

RUL4 1) Provide one (1) NTZZ10HA Quad DS-512 Fiber Interface for every four (4) DS-512 fiber speech links to be terminated.

- 2) Fiber speech links originate from Series II peripherals (FXPMs)

- 3) Card slot assignment of NTZZ10HA follows the same assignment rules as the NT9X35 Crosspoint CP. There cannot be a paddleboard provisioned in the rear card slot without a corresponding Crosspoint CP provided in the front. Card slot assignment for the first shelf is as follows: 10,32,31,30,29,12,11,28,27,14,13,26,25,16,15. The card slot assignment for subsequent shelves is: 31,11,13,15,25,27,29,10,32,12,14, 16,26,28,30.

RUL5 1) Each NTZZ10MA, can terminate 3 DS-512 fiber links and 16 DS-30 copper speech links or 15 DS-30 message links. For Initial and ENET Upgrade (Retrofit) jobs provision NTZZ10MAs for a combination of 16 DS-30 copper and 3 DS-512

fiber links. For any remaining copper and fiber links, default termination to NTZZ10GAs and NTZZ10HAs respectively.

- 2) For ENET installed offices, replace NTZZ10GAs with NTZZ10MAs as many as required on fiber peripheral extensions. Once all NTZZ10GAs are replaced use initial office rules. Note that for offices having excess copper links, give recommendation to the customer to make use of NTZZ10MAs in case of future SERIES II peripheral extensions.
 - 3) Note that, offices equipped with NT9X45BA (NTZZ10MA BB) must have at least BCS33 load.
- RUL6 1) Provide one (1) NT9X19BA, PB Filler Face Plate in each slot not equipped with a NTZZ10GA or NTZZ10HA or NTZZ10MA to satisfy the forced air cooling requirements of the cabinet.
- RUL7 1) Provide two (2) bulkhead I/F panels for each equipped shelf position, one for the left cabinet cable riser and one for the right (cabinet viewed from the rear). Bulkhead provisioning is required when the NT9X0818 shelf assembly is provided or when the shelf is connected to the SuperNode/SNSE.
- 2) Provide one (1) NTZZ10FA, Fiber Bulkhead Assembly, if slots 10R-16R and 25R-32R are to be used for fiber interface only. No NT9X41BA/45BA CPs can ever be equipped in these slots.
 - 3) If there are up to three (3) NT9X41BA/45BAs per half shelf, provide one (1) NTZZ10DA, 96 DS-30 Bulkhead Assembly. In this case, the DS-30 speech links terminating on the half shelf will be cabled directly to the Series I peripherals. In this case NT9X41BAs are restricted to a maximum of three (3) per half shelf, or six (6) per shelf assembly.
 - 4) If there are more than three (3) NT9X41BA/45BAs per half shelf, provide one (1) NTZZ10EA, 224 DS-30 Bulkhead Assembly. In this case, the DS-30 speech links terminating on the half shelf will be cross connected at an SLC. In this case NT9X41BAs are restricted to a maximum of seven (7) per half shelf, or 14 per shelf assembly.
 - 5) For Streamline applications only, provision:
two (2) NT9X8909 Streamline Bulkhead Assemblies.
- RUL8 1) Each NTZZ10GA, DS-30 Interface Assembly, can terminate 16 DS-30 copper speech links or 15 DS-30 message links. There-

fore, provide one (1) NTZZ10GA for every 16 DS-30 copper speech links or 15 single port PMS (i.e. TMs and MTMs).

- 2) The NTZZ10GA is now MD and replaced by the 3 DS512/16 DS30 Paddleboard (NTZZ10MA).
- 3) Copper speech links originate from Series I peripherals (DCMs, MTMs, etc) or from non-fiberized Series II peripherals.
- 4) Card slot assignment of NTZZ10GA follows the same assignment rules as the NT9X35 Crosspoint CP. There cannot be a paddleboard provisioned in the rear card slot without a corresponding Crosspoint CP provided in the front. Refer to Rule 2 and 5 for complete assignment rules.

RUL9 1) Deleted.

RUL10 1) Provide one (1) P0831447 terminal block designation strip per ENC cabinet when powering the enhanced network cabinet in a streamline lineup.

2) Provide one (1) P0736059 power filter label per ENC cabinet when powering the enhanced network cabinet in a stand-alone lineup.

3) Provide one (1) each of P0743003, P0743011, P0743005 and P0743009 for each plane 0 NT9X0818 Enhanced Network Shelf Assy.

4) Provide one (1) each of P0743004, P0743006, P0743012 and P0743010 for each plane 1 NT9X0818 Enhanced Network Shelf Assy.

5) Provide one (1) P0736273 Optical Fiber Danger Label (English) per shelf when DS-512 Fiber paddle boards are provided. Provide the English label for applications in English speaking countries.

6) Provide one (1) P0737638 Optical Fiber Danger Label (German) per shelf when DS-512 Fiber paddle boards are provided. Provide the German label for applications in German speaking countries.

RUL11 1) Provide one (1) NT9X9532 external Cabling Interface Kit when powering the NT9X05AC cabinet from the 7 foot PDC frame OR powering from the Model B CPDC (NTRX31CA) cabinet, OR powering from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the different lineup than the NT9X05AC.

This kit includes cables, filters, and miscellaneous mounting hardware.

- 2) Provide one (1) NT9X9531 Horizontal Power Cabling Interface Kit when powering the NT9X05AC cabinet from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the same lineup as the NT9X05AC. This kit includes power cables, terminal blocks, and miscellaneous mounting hardware.

RUL12 1) Provide one (1) NT9X0324 ESP Ground Terminator Assembly in all British telephone system.

RUL13 1) Reserved

RUL14 1) Provide CCTS as required.

The NT0X35CC (CCTS) mounts on the left and/or right side of a ENC cabinet. The CCTS provides a larger cabling area for cables connected between cabinets and frames. Cable is intended to run down (or up) this cabinet, and enter the large holes in the side of the SuperNode, ENC, etc. cabinet to reach the connector bulkheads.

The NT0X35CC MUST be provisioned for ALL 128K and 64K installations. Richardson applications do not require the cabling cabinets on both 64K and 128K ENET installations.

If two ENET cabinets are in the same lineup, the number of NT0X35CC, CCTS cabinets provided is equal to the number of NT9X05AC ENC Cabinets plus one (1). In the same lineup, one CCTS Cabinet is located on each side of the ENC Cabinets and one CCTS Cabinet is located in between each ENC (See figure below). When two ENET cabinets are in two different lineups, four (4) cabling cabinets are required.

From 64K ENET to 128K ENET upgrades refer to ECM 635.

If not initially installed with ENET, CCTS Cabinets cannot be added at a later date.

Rear

END PNL Assy	CCTS Cabinet NT0X35CC	ENC PL. 0 NT9X05AC	CCTS Cabinet NT0X35CC	ENC PL. 1 NT9X05AC	CCTS Cabinet NT0X35CC	END PNL Assy

Front

RUL15 1) Provide one (1) NTZZ10CU C42 FSP and Cooling Unit (-48V) per cabinet for markets requiring -48V input.

OR

2) Provide one (1) NTZZ10CW C42 FSP and Cooling Unit (-60V) per cabinet for markets requiring -60V input, currently only Germany and Austria applications use -60V.

RUL16 1) Provide one (1) NTZZ34PA Global +5V Power Converter for each ENET shelf required. One NTZZ34PA provides two power converters, powering a single shelf.

RUL17 1) Provide one (1) NTZZ34PC Global -5V Power Converter for each ENET shelf required. One NTZZ34PC provides two power converters, powering a single shelf.

RUL18 1) Provide one (1) NTZZ10CC 8M CPU for each ENET shelf as required.

OR

2) Provide one (1) NTZZ10CD 16M CPU for each ENET shelf as required. The NT9X13KA requires CSP004 software.

3) For existing ENETs that are replacing the NT9X13FAs, only the NT9X13KAs will need to be added as the NT9X26ABs, which are part of the NTZZ10CC and NTZZ10CD functional blocks, do not need upgrading. The NT9X26ABs are part of both functional kits.

DSN COMMON CP

PEC CODE: NTZZ07NA

CPC CODE:

RATING: Standard

| REPLACES: Not Applicable

| REPLACED BY: Not Applicable

| ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: Network Common Circuit Packs for Double
Shelf Network Equipment Frame NTZZ07AA.REFERENCE DOCUMENTATION: SLZZ07NA 00 01
NTZZ07NA REL 01

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ07NA EMB3-01-NET-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 04	----- ECM 604 07	Previous history not available Replace NT2X70AE and label to NT2X70AF and label. ECD 024-93972

The DSN Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Common CP	NT8X11AD		1			AP
Crosspoint CP	NT8X13AA		1	X+33	05	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	06	AP-01
Crosspoint CP	NT8X13AA		1	X+33	07	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	08	AP-01
Test Code CP	NT8X14AA		1	X+33	09	AP-01
Crosspoint CP	NT8X13AA		1	X+33	10	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	11	AP-01
Crosspoint CP	NT8X13AA		1	X+33	12	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	13	AP-01
Network Port CP	NT8X12AA		4	X+33	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	18	AP-01
Network P-Side Msg Proc	NT3X75BA		1	X+33	19	AP
Filler Face Plate 0.875	NT0X50AA		1	X+33	20	AP-01
Net Control Proc	NT3X74BB		1	X+33	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X+33	22	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	24	AP-01
Power Converter	NT2X70AF		1	X+33	25	AP
Crosspoint CP	NT8X13AA		1	X	05	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	06	AP-01
Crosspoint CP	NT8X13AA		1	X	07	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	08	AP-01
Test Code CP	NT8X14AA		1	X	09	AP-01
Crosspoint CP	NT8X13AA		1	X	10	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	11	AP-01
Crosspoint CP	NT8X13AA		1	X	12	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP-01
Network Port CP	NT8X12AA		4	X	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	18	AP-01
Network P-Side Msg Proc	NT3X75BA		1	X	19	AP
Filler Face Plate 0.875	NT0X50AA		1	X	20	AP-01
Net Control Proc	NT3X74BB		1	X	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X	22	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Converter	NT2X70AF		1	X	25	AP
Desig. Strip (NT8X11AD)	P0701589		2			AP-01
Desig. Label for NT3X75BA	P0700564		2		19	AP
Desig. Label for NT3X74BB	P0686094		2		21	AP
Desig. Label for NT2X70AF	P0809960		2		25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: None.

RULES:

- AP 1) When PEC NTZZ07NA is ordered, these items are provided.
- 2) One (1) Double Shelf Network Common Circuit Packs can be assigned on the frame (NTZZ07AA, NTZZ07EA or NTZZ07PA) where shelf mounting position X = 18 and the other where shelf mounting position X = 32
- AP-01 1) This PEC is always provided on the NT8X11AD Network Common CP, and is shown here for completeness.

DOUBLE SHELF NETWORK W/O NETWORK PORTS

PEC CODE: NTZZ07QA

| CPC CODE:

| RATING: STANDARD

| REPLACES: Not Applicable

| REPLACED BY: Not Applicable

| ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Network Common Circuit Packs for Double Shelf Network Equipment Frame NTZZ07AA.

REFERENCE DOCUMENTATION: SLZZ07QA 00 01
NTZZ07QA REL 01

MARKETS: Applicable markets:

CALA

| ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ07QA EMB3-01-NET-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07 95 05 04	ECM 604 03 ECM 604 07	Introduces CALA Network Common CCt. Replace NT2X70AE and label to NT2X70AF and label. ECD 024-93972

The Double Shelf Network W/O Network Ports is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Common CP	NT8X11AD		1			AP
Network Port CP	NT8X12AA		4	X+33	01-04	RUL1
Crosspoint CP	NT8X13AA		1	X+33	05	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	06	AP-01
Crosspoint CP	NT8X13AA		1	X+33	07	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	08	AP-01
Test Code CP	NT8X14AA		1	X+33	09	AP-01
Crosspoint CP	NT8X13AA		1	X+33	10	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	11	AP-01
Crosspoint CP	NT8X13AA		1	X+33	12	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	13	AP-01
Network Port CP	NT8X12AA		4	X+33	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	18	AP-01
Network P-Side Msg Proc	NT3X75BA		1	X+33	19	AP
Filler Face Plate 0.875	NT0X50AA		1	X+33	20	AP-01
Net Control Proc	NT3X74BB		1	X+33	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X+33	22	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X+33	24	AP-01
Power Converter	NT2X70AF		1	X+33	25	AP
Network Port CP	NT8X12AA		4	X	01-04	RUL1
Crosspoint CP	NT8X13AA		1	X	05	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	06	AP-01
Crosspoint CP	NT8X13AA		1	X	07	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	08	AP-01
Test Code CP	NT8X14AA		1	X	09	AP-01
Crosspoint CP	NT8X13AA		1	X	10	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	11	AP-01
Crosspoint CP	NT8X13AA		1	X	12	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	13	AP-01
Network Port CP	NT8X12AA		4	X	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	18	AP-01
Network P-Side Msg Proc	NT3X75BA		1	X	19	AP
Filler Face Plate 0.875	NT0X50AA		1	X	20	AP-01
Net Control Proc	NT3X74BB		1	X	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X	22	AP-01
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP-01
Power Converter	NT2X70AF		1	X	25	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Strip (NT8X11AD)	P0701589		2			AP-01
Desig. Label for NT8X12AA	P0654992		8		01-04	RUL1
Desig. Label for NT3X75BA	P0700564		2		19	AP
Desig. Label for NT3X74BB	P0686094		2		21	AP
Desig. Label for NT2X70AF	P0809960		2		25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

- AP 1) When PEC NTZZ07QA is ordered, these items are provided.
- 2) One (1) Network Common Circuit Packs can be assigned on the frame (NTZZ07AA) where shelf mounting position X= 18 and the other where shelf mounting position X= 32.
- AP-01 1) This PEC is always provided on the NT8X11AD Network Common CP, and is shown here for completeness.
- RUL1 1) Provide zero (0) NT8X12AA Net port CP if there is only 1 Net Module, is non-junctored at DNI and is the only Network in the office.

- 2) Provide two (2) NT8X12AA CPs in slots 1 & 2 of shelf 51 and 18 if there is 2 Net Modules per frame, is non junctored at the DNI and there are 2 Networks in the office.
- 3) Provide two (2) NT8X12AA CPs in slots 1 & 2 of shelf 51 and 18 if there is 2 Net modules in the office, 1 is either the NT5X13__ or NT0X48__ type and the other is type NT8X10__.
Note, there must be a junctored DNI.
- 4) Provide four (4) NT8X12AA CPs in slots 1,2,3 & 4 of shelf 51 and 18 if there is 1 Net Module per frame, is junctored at the DNI and there are 3 or more Networks in the Office.
- 5) Provide four (4) NT8X12AA CPs in slots 1,2,3 & 4 of shelf 51,18,65 & 32 if there are 2 Net Module per frame, is junctored at the DNI and there are 3 or more Networks in the Office.
- 6) Provide one (1) P0654992 Desig. Label for each NT8X12AA circuit pack provisioned.

INTERNATIONAL DOUBLE SHELF NETWORK

PEC CODE: NTZZ41PA

CPC CODE:

RATING: Standard

| REPLACES: Not Applicable

| REPLACED BY: Not Applicable

| ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Network Common Circuit Packs for Double Shelf Network Equipment Frame NTZZ07AA.

REFERENCE DOCUMENTATION: SLZZ41PA 00 01 PAS

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

| ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ41PA EMB3-01-NET-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07 95 05 04	ECM 604 03 ECM 604 07	Introduces Int. Network Common CCt. Replace NT2X70AE and label to NT2X70AF and label. ECD 024-93972

The International Double Shelf Network is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Common CP	NT8X11BB		1			AP
Network Port CP	NT8X12AA		8	X,X+33	01-04	RUL1
Crosspoint CP	NT8X13BA		2	X,X+33	05	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	06	AP-01
Crosspoint CP	NT8X13BA		2	X,X+33	07	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	08	AP-01
Test Code CP	NT8X14AA		2	X,X+33	09	AP-01
Crosspoint CP	NT8X13BA		2	X,X+33	10	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	11	AP-01
Crosspoint CP	NT8X13BA		2	X,X+33	12	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	13	AP-01
Network Port CP	NT8X12AA		8	X,X+33	14-17	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	18	AP-01
Network P-Side Msg Proc	NT3X75BA		2	X,X+33	19	AP
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	20	AP-01
Net Control Proc	NT3X74BB		2	X,X+33	21	AP
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	22	AP-01
Filler Face Plate 0.875	NT0X50AA		2	X,X+33	24	AP-01
Power Converter	NT2X70AF		2	X,X+33	25	AP
Desig. Strip (NT8X11BB)	P0701588		2			AP-01
Desig. Label for NT8X12AA	P0654992		8		01-04	RUL1
Desig. Label for NT3X75BA	P0700564		2		19	AP
Desig. Label for NT3X74BB	P0686094		2		21	AP
Desig. Label for NT2X70AE	P0809960		2		25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

None.

RULES:

- AP 1) When PEC NTZZ41PA is ordered, these items are provided.
- 2) One (1) Network Common Circuit Packs can be assigned on the frame (NTZZ07AA) where shelf mounting position X= 18 and the other where shelf mounting position X= 32.
- AP-01 1) This PEC is always provided on the NT8X11BB Network Common CP, and is shown here for completeness.
- RUL1 1) Provide zero (0) NT8X12AA Net port CP if there is only 1 Net Module, is non-junctored at DNI and is the only Network in the office.
- 2) Provide two (2) NT8X12AA CPs in slots 1 & 2 of shelf 51 and 18 if there is 2 Net Modules per frame, is non junctored at the DNI and there are 2 Networks in the office.
- 3) Provide two (2) NT8X12AA CPs in slots 1 & 2 of shelf 51 and 18 if there is 2 Net modules in the office, 1 is either the NT5X13__ or NT0X48_ type and the other is type NT8X10__.
 Note, there must be a junctored DNI.
- 4) Provide four (4) NT8X12AA CPs in slots 1,2,3 & 4 of shelf 51 and 18 if there is 1 Net Module per frame, is junctored at the DNI and there are 3 or more Networks in the Office.
- 5) Provide four (4) NT8X12AA CPs in slots 1,2,3 & 4 of shelf 51,18,65 & 32 if there are 2 Net Module per frame, is junctored at the DNI and there are 3 or more Networks in the Office.
- 6) Provide one (1) P0654992 Desig. Label for each NT8X12AA circuit pack provisioned.

| NETWORK PORT CP

NTZZ07MA

RATING: Standard

ABBREVIATION NAME: NTZZ07MA

ENGINEERING DESCRIPTION: contains the circuit packs required for network port interface.

REFERENCE DOCUMENTATION: SLZZ07MA 00 01
NTZZ07MA REL 01

The Network Port CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Port CP	NT8X12AA		2	X	YY,YY+1	AP
Network Port CP	NT8X12AA		2	X+33	YY,YY+1	AP
Desig Label (NT8X12AA)	P0654992		2	X	YY,YY+1	AP
Desig Label (NT8X12AA)	P0654992		2	X+33	YY,YY+1	AP

RULES:

- AP 1) When PEC NTZZ07MA is ordered, these items are provided.
- 2) NTZZ07MA Network Port CP can be assigned to card slots where shelf mounting position X= 18 and the other where shelf mounting position X= 32. Card slot mounting position YY must be 01 or 03 assigned in ascending order as provisioned.

DOUBLE SHELF NETWORK EQUIPMENT FRAME

PEC CODE: NTZZ07AA

CPC CODE: B0231757

RATING: Standard

| REPLACES: NTZZ07EA, NTZZ07PA

REPLACED BY: Not Applicable

ABBREVIATION NAME: DSNE

ENGINEERING DESCRIPTION: The DSNE houses up to two complete networks per plane in a single bay.

REFERENCE DOCUMENTATION: SLZZ07AA 00 03
NTZZ07AA REL 01

| MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: Sandy Kwan Dept. S646 (BRW)

MAIN CONTACT: Sandy Kwan Dept. S646 (BRW)

NTZZ07AA EMB3-01-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 07 92 11 20	ECM 604 03 ECM 604 04	Introduces Int BBlocks on the Frame EC #018-39307 - Replace NT0X25AV with NT0X25AH. Change status of NT0X25AV to A&M.
93 07 29	ECM 604 05	ET17199 - Correct typo. Change cable NT8X1101,NT8X1102 to NT8X1001,NT8X1002
93 11 24	ECM 604 06	NTZZ07AA replaces NTZZ07EA & NTZZ07PA because Universal Framework NT0X25AH replaces Common Framework NT0X25AA and NT0X25AH is applicable to US and Canada.

The Double Shelf Network Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Double Shelf Net Equip Fr	NT8X10AA		1			AP
Double Shelf Network Assy	NT8X11AB	NET0:1		65/		RUL2
Filler Panel	P0575239	NET1:1		32		RUL2
				65, 32		RUL1
Network Module Shelf Assy	NT8X1101	NET0:0	1	51		AP-01
Network Module Shelf Assy	NT8X1101	NET1:0	1	18		AP-01
Network Common CP	NTZZ07BA			32, 18		RUL2
Double Shelf NWk (w/o Ports)	NTZZ07QA			32, 18		RUL2
Internat. Double Shelf Netw.	NTZZ41PA			32, 18		RUL2
DSN Common CP	NTZZ07NA			32, 18		RUL4
Network Port CP	NTZZ07MA			32, 18	01, 03	RUL4
NT-40 Net Clock Interface	NTZZ07CA			32, 18	23	RUL3
SuperNode Net Clock I/F	NTZZ07DA			32, 18	23	RUL3
Frame Supervisory Panel	NT0X28AK	FSP	1	45		AP-01
DC Fan Cooling Unit	NT3X90AC	CU	1	04		AP
# Universal Framework	NT0X25AH	FW	1			AP
Cable Assembly	NT8X1001					RUL5
Cable Assembly	NT8X1002					RUL5
Cable Assembly	NT8X1104					RUL5
26AWG Single Green Wire	R0109836			32		RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X25AV	A&M	NT0X25AH

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTZZ07AA is a single bay dual plane frame comprising four (4) separate Network Modules (NM), two (2) for plane 0 and two (2) for plane 1. The lower numbered NM is located on pos 51 designated as plane 0 and located on pos 18 designated as plane 1. The higher numbered NM is located on pos 65 designated as plane 0 and located on pos 32 designated as plane 1. The FSP is common to both planes.
- 2) Each NM can terminate sixty-four (64) speech links originating from peripheral modules.
- 3) In the ABBR column, the following notation applies:
 - NET0:1 - Network Plane 0 for NM 1
 - NET1:1 - Network Plane 1 for NM 1
 - NET0:0 - Network Plane 0 for NM 0
 - NET1:0 - Network Plane 1 for NM 0

RULES:

- AP 1) When PEC NTZZ07AA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT8X10AA Frame, and is shown here for completeness.

- RUL1 1) Provide two (2) P0575239 Filler Panels, one on position 65 and one on position 32, when this frame, NTZZ07AA, is equipped with one (1) Network Module per plane.
- RUL2 1) Provide NT8X11AB (Double Shelf Network Assembly) and NTZZ07BA,QA /NTZZ41PA (Network Common Circuit Packs) as per Table A. Provisioning the first NTZZ07BA,QA/NTZZ41PA in the frame will equip circuit packs in shelf positions 18 and 51. The second NTZZ07BA,QA/NTZZ41PA will provide circuit packs in shelf positions 32 and 65. Use the NTZZ07BA for the following markets: US,CANADA. Use the NTZZ07QA for the following markets: CALA. Use the NTZZ41PA for the following markets: EUROPE, ASIA/Pacific.

TABLE A

	NTZZ07BA or NTZZ07QA or NTZZ41PA NETWORK COMMON CP		NT8X11AB NT8X11AB DOUBLE SHELF NETWORK ASSY	
	QTY	POSITION	QTY	POSITION
1 Network Module per frame junctored at DNI	1	18	0	
2 Network Modules per frame junctored at DNI	2	18,32	1	32

- RUL3 1) Provide one (1) NTZZ07CA NT-40 Network Clock Interface for each NTZZ07BA,QA Network Common CP that interfaces to an NT-40. Assign the first NTZZ07CA to shelf positions 18 in card slot 23, and the second NTZZ07CA to shelf position 32 in card slot 23.
- 2) Provide one (1) NTZZ07DA SuperNode Network Clock Interface for each NTZZ07BA,QA/NTZZ41PA Network Common CP that interfaces to an SuperNode. Assign the first NTZZ07DA to shelf position 18 in card slot 23, and the second NTZZ07CA to shelf position 32 in card slot 23.

- RUL4 1) Provide NT8X11AB Double Shelf Network Assembly, NTZZ07NA DSN Common CP and NTZZ07MA Network Port CP as per Table B. Provisioning the first NTZZ07NA in the frame will equip circuit packs in shelf positions 18 and 51. The second NTZZ07NA will provide circuit packs in shelf positions 32 and 65. The NTZZ07NA DSN Common CP and NTZZ07MA Network Port CP shall only be provided in offices with only one or two network modules and no DNI frame.

TABLE B

	NTZZ07NA		NT8X11AB		NTZZ07MA	
	DSN COMMON CP		DOUBLE SHELF NETWORK ASSY		NETWORK PORT CP	
	QTY	POSITION	QTY	POSITION	QTY	POSITION
1 Network Module per frame not junctioned at DNI	1	18	0		0	
2 Network Modules per frame not junctioned at DNI	2	18, 32	1	32	2	18-01, 32-01

NOTE: For a one network office equipped with a NTZZ07NA on a NTZZ07AA DSNE frame extending to a two network office provide, the NT8X11AB at position 32, the NTZZ07NA at position 32, and two NTZZ07MA (Position 18-01 and Position 32-01). For a two network office equipped with two NTZZ02NA on a NTZZ07AA DSNE frame extending to three or more networks, provide two NTZZ07MA for the existing NTZZ07NA (Position 18-03 and position 32-03). The added network modules shall be provisioned using PEC NTZZ07BA,QA. Three or more networks in an office requires a DNI frame for junctioning.

RUL5 1) Provide Cable Assemblies NT8X1104, NT8X1001 and NT8X1002 as per Table C:

TABLE C

	NT8X1104		NT8X1001		NT8X1002	
	CABLE ASSEMBLY		CABLE ASSEMBLY		CABLE ASSEMBLY	
	QTY	FROM/TO	QTY	FROM/TO	QTY	FROM/TO
1 Network Module per frame non-junctored at DNI (i.e. only 1 DSNE in the office)	1	51:01-51:02	0		0	
	1	51:03-51:04				
	1	18:01-18:02				
	1	18:03-18:04				
2 Network Modules per frame non-junctored at DNI (i.e. only 1 DSNE in the office)	1	51:03-51:04	2	18:01-32:02	2	18:01-32:02
	1	18:03-18:04	2	18:02-32:01	2	18:02-32:01
	1	65:03-65:04	2	51:01-65:02	2	51:01-65:02
	1	32:03-32:04	2	51:02-65:01	2	51:02-65:01
2 Network Modules per frame junctored at DNI (i.e. only 1 DSNE in the office)	1	51:03-51:04	0		0	
	1	18:03-18:04				
	1	65:03-65:04				
	1	32:03-32:04				

TABLE C (continued)

	NT8X1104		NT8X1001		NT8X1002	
	CABLE ASSEMBLY		CABLE ASSEMBLY		CABLE ASSEMBLY	
	QTY	FROM/TO	QTY	FROM/TO	QTY	FROM/TO
Only 2 Network Modules in office: one network of NETC version (NT5X13__) or one network of NET version (NT0X48__) and one network of DSNE version (NT8X10__). NOTE: A DNI is always required.	1 1	51:03-51:04 18:03-18:04	0		0	
1 Network Module per frame junctored at DNI (i.e. 3 or more Networks in the office)	0		0		0	
2 Network Modules per frame junctored at DNI (i.e. 3 or more Networks in the office)	0		0		0	

NOTE: "Qty" refers to the number of Cable Assemblies to provide while "From/To" refers to the two positions on the frame (Shelf Position:Card Position) that are connected via the Cable Assembly.

- 2) In extensions, when converting from one configuration to another, ensure that additional Cable Assemblies are provided/removed in order to satisfy the final configuration.

RUL6 1) When PEC NTZZ07BA,QA or NTZZ07NA is shipped loose to a job site then 4.0 meters of this wire is always required.

CABINETIZED DUAL SHELF NETWORK
(MODEL B)

PEC CODE: NTZZ47FA

CPC CODE: B0237894

| RATING: MD

REPLACES: Not applicable

REPLACED BY: NTZZ47FB

ABBREVIATION NAME: CDSN

ENGINEERING DESCRIPTION: The CDSN houses up to two complete networks per plane in a single bay. All connectors to and from the network module are connected through a bulkhead for EMI protection. The CDSN can only be used with a DMS-CORE, connection to NT-40 is not supported. Personality plates are Always Provided with the cabinet.

REFERENCE DOCUMENTATION: SLZZ47FA 00 01
NTZZ47FA REL 01

MARKETS: Applicable markets:

US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Gary Baum Dept. 3471 (PPK)

MAIN CONTACT: NTI: Lily Ahluwalia Dept. 3471 (PPK)

NTZZ47FA EMB3-01-001 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 11 16	ECM 683 01	Introduces the NTZZ47FA CDSN Cabinet.
94 03 11	ECM 683 03	Cancelled
94 10 06	ECM 683 10	MD per Don Rhodes cocos.

The Cabinetized Dual Shelf Network (Model B) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cabinet Dual Shelf Network	NTRX35CA	CDSN	1			AP
2" Filler Plate	P0684448		1	65		AP-01
CDSN Mod Supervisory Panel	NTRX3546	MSP	1	61		AP
Filler Faceplates	NT6X02AB			47,19		RUL1
Network Module Shelf Assy	NT8X1101	NET0:1	1	47		AP-01
Network Port CP	NT8X12AA			47	01-04	RUL2
Desig. Label for NT8X12AA	P0654992			47	01-04	RUL2
Filler Face Plate 0.875	NT0X50AA			47	01-04	RUL2
Network P-Side Msg Processor	NT3X75BA			47	19	RUL3
Desig. Label for NT3X75BA	P0700564			47	19	RUL3
Network P-Side Msg Processor	NT3X75BB			47	19	RUL3
Desig. Label for NT3X75BB	P0703468			47	19	RUL3
Network Module Shelf Assy	NT8X1101	NET1:1	1	19		AP-01
Network Common CP (48V)	NTZZ07RA			19		RUL2
Network Common CP (48V Intl)	NTZZ07SA			19		RUL2
Network Port CP	NT8X12AA			19	01-04	RUL2
Desig. Label for NT8X12AA	P0654992			19	01-04	RUL2
Filler Face Plate 0.875	NT0X50AA			19	01-04	RUL2
Network P-Side Msg Processor	NT3X75BA			19	19	RUL3
Desig. Label for NT3X75BA	P0700564			19	19	RUL3
Network P-Side Msg Processor	NT3X75BB			19	19	RUL3
Desig. Label for NT3X75BB	P0703468			19	19	RUL3
Network Module Shelf Assy	NT8X1101	NET0:0	1	33		AP-01
Network Port CP	NT8X12AA			33	01-04	RUL2
Desig. Label for NT8X12AA	P0654992			33	01-04	RUL2
Filler Face Plate 0.875	NT0X50AA			33	01-04	RUL2
Network P-Side Msg Processor	NT3X75BA			33	19	RUL3
Desig. Label for NT3X75BA	P0700564			33	19	RUL3
Network P-Side Msg Processor	NT3X75BB			33	19	RUL3
Desig. Label for NT3X75BB	P0703468			33	19	RUL3
Network Module Shelf Assy	NT8X1101	NET1:0	1	05		AP-01
Network Common CP (48V)	NTZZ07RA			05		RUL2
Network Common CP (48V Intl)	NTZZ07SA			05		RUL2
Network Port CP	NT8X12AA			05	01-04	RUL2
Desig. Label for NT8X12AA	P0654992			05	01-04	RUL2
Filler Face Plate 0.875	NT0X50AA			05	01-04	RUL2
Network P-Side Msg Processor	NT3X75BA			05	19	RUL3
Desig. Label for NT3X75BA	P0700564			05	19	RUL3
Network P-Side Msg Processor	NT3X75BB			05	19	RUL3
Desig. Label for NT3X75BB	P0703468			05	19	RUL3

Active Equipment
Cabinetized Dual Shelf Network
(Model B)

NTZZ47FA
EMB3-01-001
Page 3

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cable Assembly	NT8X1001					RUL4
Cable Assembly	NT8X1002					RUL4
Cable Assembly	NT8X1104					RUL4
Personality Plate	P0730029		4	47,33,19,05		AP-01
37 Pin Cover Plate	P0715774			47,33,19,05		RUL5
Screws	P0670923			47,33,19,05		RUL5
CDSN Transmit Cable Assy	NTRX3536			47,33,19,05		RUL5
CDSN Receive Cable Assy	NTRX3537			47,33,19,05		RUL5
Cooling Unit	NTRX92AA	CU	1	00		AP
Fan Power Control Module	NTRX54BA		1			AP
Designation Label	P0741735		1			AP
Door Kit (Center Latch) Grey	NTRX2568		1			AP
CDSN Door Label	P0726706		1			AP
External Filter Power Kit	NTRX35MG		1			AP
English Label Kit	NTRX3541					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTZZ47FA is a single bay dual plane cabinet comprising four (4) separate Network Modules (NM), two (2) for plane 0 and two (2) for plane 1. The lower numbered NM is located on

pos 33 designated as plane 0 and located on pos 05 designated as plane 1. The higher numbered NM is located on pos 47 designated as plane 0 and located on pos 19 designated as plane 1. The MSP is common to both planes.

- 2) Each NM can terminate sixty-four (64) speech links originating from peripheral modules/SLC cabinet.
- 3) In the ABBR column, the following notation applies:

NET0:1 - Network Plane 0 for NM 1
NET1:1 - Network Plane 1 for NM 1
NET0:0 - Network Plane 0 for NM 0
NET1:0 - Network Plane 1 for NM 0
- 4) The CDSN is always equipped with four (4) network shelves. Only circuit packs are provisionable.
- 5) NTZZ47GA has system level provisionable items covering requirements for the following: :ul :li Seismic Zone provisioning :li Grounding options provisioning :li Cable routing options provisioning :eul

RULES:

- AP 1) When PEC NTZZ47FA is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NTRX35CA cabinet and is shown here for completeness.
- RUL1 1) Provide one (1) NT6X02AB Filler Faceplates for position 47 and position 19, when this cabinet is equipped with one (1) Network Module per plane.

- RUL2 1) Provide the Network Common CP Kit and the Network Port CP as per Table A for Network Modules NON-junctored at the CDNI. There are two choices for the Network Common CP Kit: 48V and 48V International.

TABLE A

	NTZZ07RA or NTZZ07SA NETWORK COMMON CP		NT8X12AA NETWORK PORT CP	
	QTY	POSITION	QTY	POSITION
1 Network Module per cab. non-junctored at CDNI (i.e. only 1 CDSN in the office)	1	33: 05:	0	
2 Network Modules per cab. non-junctored at CDNI (i.e. only 1 CDSN in the office)	1	33: 05:	2	33:01-02
			2	05:01-02
	1	47:	2	47:01-02
		19:	2	19:01-02

- 2) Provide the Network Common CP Kit and the Network Port CP as per Table A1 for Network Modules JUNCTORED at the CDNI. There are two choices for the Network Common CP Kit: 48V and 48V International.

TABLE A1

	NTZZ07RA or NTZZ07SA NETWORK COMMON CP		NT8X12AA NETWORK PORT CP	
	QTY	POSITION	QTY	POSITION
1 Network Module per cab. junctored at CDNI (i.e. 3 or more Networks in the office)	1	33: 05:	4 4	33:01-04 05:01-04
2 Network Modules per cab. junctored at CDNI (i.e. 3 or more Networks in the office)	1 1	33: 05: 47: 19:	4 4 4 4	33:01-04 05:01-04 47:01-04 19:01-04

NOTE: "Qty" refers to the number of PECs to order while "Position" refers to the shelf position and card position (Shelf:Card) of the CP.

- 3) In extensions, when converting from one configuration to another, ensure that additional CP's are provided/removed in order to satisfy the final configuration.

- 4) Provide one (1) NT0X50AA, Filler Face Plate, in each unequipped position.

- RUL3 1) Provide one (1) NT3X75BA, Network P-Side Msg Processor Non-ISDN, for card pos 19 when ISDN is not required. Also, provide one (1) designation label.
- 2) Provide one (1) NT3X75BB, Network P-Side Msg Processor ISDN, for card pos 19 when ISDN Fibre Remotes are required. Also, provide one (1) designation label.

RUL4 1) Provide Cable Assemblies NT8X1104, NT8X1001 and NT8X1002 as per Table B:

TABLE B

	NT8X1104		NT8X1001		NT8X1002	
	CABLE ASSEMBLY		CABLE ASSEMBLY		CABLE ASSEMBLY	
	QTY	FROM/TO	QTY	FROM/TO	QTY	FROM/TO
1 Network Module per cab. non-junctored at CDNI (i.e. only 1 network in the office)	1	33:01-33:02	0		0	
	1	33:03-33:04				
	1	05:01-05:02				
	1	05:03-05:04				
2 Network Modules per cab. non-junctored at CDNI (i.e. only 1 CDSN in the office)	1	33:03-33:04	2	05:01-19:02	2	05:01-19:02
	1	05:03-05:04	2	05:02-19:01	2	05:02-19:01
	1	47:03-47:04	2	33:01-47:02	2	33:01-47:02
	1	19:03-19:04	2	33:02-47:01	2	33:02-47:01

NOTE: "Qty" refers to the number of Cable Assemblies to provide while "From/To" refers to the two positions on the cabinet (Shelf Position:Card Position) that are connected via the Cable Assembly.

- 2) In extensions, when converting from one configuration to another, ensure that additional Cable Assemblies are provided/removed in order to satisfy the final configuration.

- RUL5 1) Provide 32 P0715774, 37-Pin Cover Plate, and 64 P0670923, Screw, per Cabinet when non-junctored at the CDNI.
- 2) Provide eight (8) NTRX3536, CDSN Transmit Cable Assembly, and eight (8) NTRX3537, CDSN Receive Cable Assembly, per Network when junctored at the CDNI.
- RUL6 1) Provide one (1) NTRX3541, English Label Kit, per cabinet when CDSN requires English labels.

REFURBISHED DSNE

PEC CODE: NTZZ07AD

CPC CODE: B0249855

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: DSNE

ENGINEERING DESCRIPTION: The DSNE houses up to two complete networks per plane in a single bay. This equipment consists of refurbished circuit packs.

REFERENCE DOCUMENTATION: MS8X10AA 00 09

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ07AD EMB3-01-701 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 11 04	ECM 191 18	Initial release of section.

The Refurbished DSNE is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Earthquake Framework	NT0X25AH		1			AP
Double Shelf Network	NT8X10AA	NET0:0	1	51,18		AP
Double Shelf Network Assy	NT8X11AB	NET0:1	1	65,32		AP
Network Common CP (Domestic)	NT8X11AD		1	51,18		AP
Network Port CP	NT8X12AA		4	51,18	01-04	AP
Network P-Side Msg Proc	NT3X75BA		1	51	19	AP
Net Control Proc (DMS-Core)	NT3X74BB		1	51	21	AP
Net Clock CP (DMS-Core)	NT3X76AC		1	51	23	AP
Power Converter	NT2X70AF		1	51	25	AP
Network Port CP	NT8X12AA		4	18	01-04	AP
Network P-Side Msg Proc	NT3X75BA		1	18	19	AP
Net Control Proc (DMS-Core)	NT3X74BB		1	18	21	AP
Network Clock CP (DMS-Core)	NT3X76AC		1	18	23	AP
Power Converter	NT2X70AF		1	18	25	AP
DC Fan Cooling Unit	NT3X90AC	CU	1	04		AP
Support Bar	P0558644		2	31,16	Rear	AP
Screws	P097F813		4			AP
Refurbished DSN Module	NTZZ07AG		1	65,32		RUL1
DSN Faceplates	NTZZ07AH		1	65,32		RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NT8X10AA is a single bay dual plane frame comprising four (4) separate Network Modules (NM), two (2) for plane 0 and two (2) for plane 1. The lower numbered NM is located on pos 51 designated as plane 0 and located on pos 18 designated as plane 1. The higher numbered NM is located on pos 65 designated as plane 0 and located on pos 32 designated as plane 1. The FSP is common to both planes.
- 2) Each NM can terminate sixty-four (64) speech links originating from peripheral modules.
- 3) In the ABBR column, the following notation applies:

NET0:1 - Network Plane 0 for NM 1
NET1:1 - Network Plane 1 for NM 1
NET0:0 - Network Plane 0 for NM 0
NET1:0 - Network Plane 1 for NM 0
- 4) For offices with existing NETC frames, NT5X13AA/BA, when provisioning NT3X72AB, NT3X73AA, and NT3X86AA, refer to MS5X13AA/BA.

RULES:

- RUL1 1) Provide either one (1) Refurbished DSN Module (NTZZ07AG) OR one (1) DSN Faceplates for the second DSN in this equipment frame.

REFURBISHED DSN MODULE

PEC CODE: NTZZ07AG

CPC CODE: B0249856

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: DSNE MOD

ENGINEERING DESCRIPTION: Network Common Circuit Pack and provisionable circuit packs to comprise a complete Network Module. This module consists of refurbished circuit packs.

REFERENCE DOCUMENTATION: MS8X10AA 00 09

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ07AG EMB3-01-711 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 11 04	ECM 191 18	Initial release of section.

The Refurbished DSN Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Common CP (Domestic)	NT8X11AD		1	65, 32		AP
Network Port CP	NT8X12AA		4	65	01-04	AP
Network P-Side Msg Proc	NT3X75BA		1	65	19	AP
Net Control Proc (DMS-Core)	NT3X74BB		1	65	21	AP
Net Clock CP (DMS-Core)	NT3X76AC		1	65	23	AP
Power Converter	NT2X70AF		1	65	25	AP
Network Port CP	NT8X12AA		4	32	01-04	AP
Network P-Side Msg Proc	NT3X75BA		1	32	19	AP
Net Control Proc (DMS-Core)	NT3X74BB		1	32	21	AP
Net Clock CP (DMS-Core)	NT3X76AC		1	32	23	AP
Power Converter	NT2X70AF		1	32	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NT8X10AA is a single bay dual plane frame comprising four (4) separate Network Modules (NM), two (2) for plane 0 and two (2) for plane 1. The lower numbered NM is located on pos 51 designated as plane 0 and located on pos 18 designated as plane 1. The higher numbered NM is located on pos 65 designated as plane 0 and located on pos 32 designated as plane 1. The FSP is common to both planes.

- 2) Each NM can terminate sixty-four (64) speech links originating from peripheral modules.
- 3) In the ABBR column, the following notation applies:
 - NET0:1 - Network Plane 0 for NM 1
 - NET1:1 - Network Plane 1 for NM 1
 - NET0:0 - Network Plane 0 for NM 0
 - NET1:0 - Network Plane 1 for NM 0

RULES:

DSN FACEPLATES

PEC CODE: NTZZ07AH

CPC CODE: B0249854

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This block contains all the faceplates necessary to fill in a DSNE module in a DSNE frame.

REFERENCE DOCUMENTATION: MS8X10AA 00 09

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ07AH EMB3-01-721 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 11 04	ECM 191 18	Initial release of section.

The DSN FACEPLATES is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		24	65	01-24	AP
Filler Face Plate 0.875	NT0X50AA		24	32	01-24	AP
Filler Face Plate 1.750	NT0X50AE		1	65	25	AP
Filler Face Plate 1.750	NT0X50AE		1	32	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

SPEECH LINK CONNECTING FRAME

PEC CODE: NTZZ21AA

CPC CODE: B0232051

| RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: SLC or SLCC

ENGINEERING DESCRIPTION: NTZZ21AA provides a patch cord cross-connecting facility in the speech links between the Peripheral and Network subsystems. The network interface ports of the peripheral equipment terminate on Peripheral Speech Link Connecting panels (PSL) while the peripheral face ports of the network modules terminate on Network Speech Link Connecting panels (NSL). Connectorized patch cords complete the interconnections between ports of the two groups.

| This Building Block is now available for applications in the United States.

REFERENCE DOCUMENTATION: MSZZ21AA 00 01
SLZZ21AA 00 03
NTZZ21AA REL 02

MARKETS: Applicable markets:

US
Canada
CALA
Asia/Pacific
Europe

| ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: William Stanley Dept. 3471 (PPK)

NTZZ21AA EMB3-02-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 07	----- ECM 672 02	Previous history not available EC #018-39307 - Replace NT0X25AV with NT0X25AH. Change status of NT0X25AV to A&M. ET20223 - '01' is not a valid mounting position when using NT0X25AV/AH Fws.
93 11 11	ECM 672 03	Add U.S. market application.
96 03 26	ECM 672 05	MD section per BB rationalization.
96 05 02	ECM 672 06	un MD section, required as product.

The Speech Link Connecting Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Speech Link Conn Frame	NT0X56AA	SLC	1			AP
\$ Universal Framework	NT0X25AH	FW	1			AP
# Network Speech Link Panel	NT0X56AB	NSL		XX		RUL2
% Peripheral Speech Link Pnl	NT0X56AC	PSL		XX		RUL1
Network Speech Link Panel	NT0X56BB	NSL		XX		RUL2
Peripheral Speech Link Panel	NT0X56BC	PSL		XX		RUL1
Digital Net Junctor Cntg Pnl	AR	NJC		XX		RUL4
Speech Link Patch Cords	AR					RUL3

NT0X56AB is replaced by NT0X56BB.

% NT0X56AC is replaced by NT0X56BC.

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

\$ The NT0X25AV is A&M and is replaced by NT0X25AH.

NOTES:

- 1) "XX" can be one of 71, 68, 64, 61, 57, 54, 50, 47, 43, 40, 36, 33, 29, 26, 22, 19, 15, 12, 08, 05. Note that, '01' is not a valid mounting position when using NT0X25AV and NT0X25AH Frameworks.

- 2) For offices whose ultimate size will not exceed four (4) NET per plane and depending on the PSL to NSL ratio, speech link panels of both planes may be combined on the same SLC. However, this is not recommended and should be considered only if floor space for the second SLC is not available.

Plane 0 shelf positions are as follows:

71, 68, 64, 61, 57, 54, 50, 47, 43, 40

Plane 1 shelf positions are as follows:

36, 33, 29, 26, 22, 19, 15, 12, 08, 05, 01

Note that, '01' is not a valid mounting position when using NT0X25AV and NT0X25AH Frameworks.

- 3) It is a general practice to start connector panel assignments on the speech link connecting frame from the top of the frame. Alternate PSL panels and NSL panels accordingly.
- 4) Each Speech Link Connecting Frame can accommodate up to 21 PSL plus NSL panels. However, in order to ensure easy access to all panels and to limit cabling congestion it is recommended that one (1) SLC be provided per eight (8) Network Modules in each plane. The number of vacant panel positions at the bottom of each frame will depend on the total NET count and on the ratio of PSL to NSL panels.

RULES:

- AP 1) When PEC NTZZ21AA is ordered, these items are provided.
- RUL1 1) As a minimum requirement provide one (1) PSL per plane for every sixteen (16) Speech Link Cable Groups originating from peripheral modules or frames.
- 2) NT0X56AC has been rated MD. Replace by NT0X56BC.
- 3) For ease of office administration, separate PSL can be used to segregate Cable Groups according to originating peripheral type.
- 4) Each Cable Group originating from a given peripheral can contain a maximum of five (5) Speech Links from that peripheral (module) or the individual modules contained on that peripheral (frame).

- 5) Peripheral types, TM, MTM, OAU and TAN utilize just one Speech Link per module per plane and therefore are not assigned individual Cable Groups. Instead modules on a given frame share a common Cable Group associated with that frame.
- RUL2 1) One NSL can terminate all the speech links from one Network Module (NM).
- 2) NT0X56AB has been rated MD. Replace by NT0X56BB.
- 3) Provide two (2) Network Speech Link (NSL) Panels, NT0X56BB, for each network (i.e. one per network plane) provided.
- RUL3 1) Speech link patch cords are selected according to the running distance between the two ports which are to be interconnected.
- 2) NOTE: DNI and SLC patch cords are not interchangeable.
- 3) The following speech link patch cords are required when cross connecting between NSL panels NT0X56AB and PSL panels NT0X56AC:

LENGTH (FEET)	LENGTH (METRES)	CONNECTOR COLOUR	PRODUCT CODE (PEC)	PRODUCT CODE (CPC)
0.5	.15	BL	NE-P4QE	A0265763
1.0	.30	Y	NE-P4QF	A0265764
1.5	.46	BK	NE-P4QG	A0265765
2.0	.61	R	NE-P4QH	A0265766
2.5	.76	G	NE-P4QJ	A0265767
3.0	.91	W	NE-P4QK	A0265768
3.5	1.07	O	NE-P4QL	A0265769
4.0	1.22	BL	NE-P4QM	A0265770
4.5	1.37	V	NE-P4QN	A0265771
5.0	1.52	Y	NE-P4QP	A0265772
5.5	1.68	BR	NE-P4QR	A0265773
6.0	1.83	BK	NE-P4QS	A0265774
6.5	1.98	R	NE-P4QT	A0265775
7.0	2.13	O	NE-P4QU	A0265776
7.5	2.29	BL	NE-P4QW	A0265777
8.0	2.44	G	NE-P4QX	A0265778
8.5	2.59	W	NE-P4QY	A0265779
9.0	2.74	V	NE-P4QAA	A0265780
9.5	2.90	Y	NE-P4QAB	A0265781
10.0	3.05	BR	NE-P4QAC	A0265782
10.5	3.20	BK	NE-P4QAD	A0265783
11.0	3.35	R	NE-P4QAE	A0265784
11.5	3.51	G	NE-P4QAF	A0265785
12.0	3.66	W	NE-P4QAG	A0265786
12.5	3.81	O	NE-P4QAH	A0265787
13.0	3.96	BL	NE-P4QAJ	A0265788
13.5	4.11	V	NE-P4QAK	A0265789
14.0	4.27	Y	NE-P4QAL	A0265790
14.5	4.42	BR	NE-P4QAM	A0265791
15.0	4.57	BK	NE-P4QAN	A0265792
15.5	4.72	R	NE-P4QAP	A0265793
16.0	4.88	O	NE-P4QAR	A0265794
16.5	5.03	BL	NE-P4QAS	A0265795
17.0	5.18	G	NE-P4QAT	A0265796
17.5	5.33	W	NE-P4QAU	A0265797
18.0	5.49	V	NE-P4QAW	A0265798
18.5	5.64	Y	NE-P4QAX	A0265799
19.0	5.79	BR	NE-P4QAY	A0265800
19.5	5.94	BK	NE-P4QBA	A0265801
20.0	6.10	R	NE-P4QBB	A0265802
20.5	6.25	O	NE-P4QBC	A0265803
21.0	6.40	BL	NE-P4QBD	A0265804
21.5	6.55	G	NE-P4QBE	A0265805

22.0	6.71	W	NE-P4QBF	A0265806
22.5	6.86	V	NE-P4QBG	A0265807
23.0	7.01	Y	NE-P4QBH	A0265808
23.5	7.16	BR	NE-P4QBJ	A0265809
24.0	7.32	BK	NE-P4QBK	A0265810
24.5	7.47	R	NE-P4QBL	A0265811
25.0	7.62	O	NE-P4QBM	A0265812
25.5	7.77	BL	NE-P4QBN	A0265813
26.0	7.92	G	NE-P4QBP	A0265814
26.5	8.08	W	NE-P4QBR	A0265815
27.0	8.23	V	NE-P4QBS	A0265816
27.5	8.38	Y	NE-P4QBT	A0265817
28.0	8.53	BR	NE-P4QBU	A0265818
28.5	8.69	BK	NE-P4QBW	A0265819
29.0	8.84	R	NE-P4QBX	A0265820
29.5	8.99	O	NE-P4QBY	A0265821
30.0	9.14	BK	NE-P4QCA	A0265822

- 4) The following speech link patch cords are required when cross connecting between NSL panels NT0X56AB and PSL panels NT0X56BC or when cross connecting between PSL panels NT0X56AC and NSL panels NT0X56BB:

LENGTH (FEET)	LENGTH (METRES)	CONNECTOR COLOUR	PRODUCT CODE (PEC)	PRODUCT CODE (CPC)
2.0	.61	W	NE-P4QEH	A0289630
3.0	.91	Y	NE-P4Q EJ	A0289631
4.0	1.22	O	NE-P4Q EK	A0289632
5.0	1.52	R	NE-P4Q EL	A0289633
6.5	1.98	G	NE-P4Q EM	A0289634
8.0	2.44	BR	NE-P4Q EN	A0289635
10.0	3.05	W	NE-P4Q EP	A0289636
15.0	4.57	Y	NE-P4Q ER	A0289637
20.0	6.10	O	NE-P4Q ES	A0289638
25.0	7.62	R	NE-P4Q ET	A0289639
30.0	9.14	G	NE-P4Q EU	A0289640

- 5) The following speech link patch cords are required when cross connecting between NSL panels NT0X56BB and PSL panels NT0X56BC:

LENGTH (FEET)	LENGTH (METRES)	CONNECTOR COLOUR	PRODUCT CODE (PEC)	PRODUCT CODE (CPC)
2.0	.61	W	NE-P4QDK	A0289611
3.0	.91	Y	NE-P4QDL	A0289612
4.0	1.22	O	NE-P4QDM	A0289613
5.0	1.52	R	NE-P4QDN	A0289614
6.5	1.98	G	NE-P4QDP	A0289615
8.0	2.44	BR	NE-P4QDR	A0289616
10.0	3.05	W	NE-P4QDS	A0289617
15.0	4.57	Y	NE-P4QDT	A0289618
20.0	6.10	O	NE-P4QDU	A0289619
25.0	7.62	R	NE-P4QDW	A0289620
30.0	9.14	G	NE-P4QDX	A0289621

- RUL4 1) Digital Network Junctor Connecting Panels (NJC) may be provided on the SLC frame. For assignment rules related to NJC, refer to Section EMB3-03-000, Digital Network Connecting Frame.

DIGITAL NETWORK CONNECTING FRAME

PEC CODE: NTZZ20AA

CPC CODE: B0232050

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DNI or DNIC

ENGINEERING DESCRIPTION: NTZZ20AA provides a patch cord junctor cross-connect facility for interconnecting between the network junctor face ports of Network Modules in the same plane.

This Building Block may now be used for applications in the United States.

REFERENCE DOCUMENTATION: MSZZ20AA 00 01
SLZZ20AA 00 02
NTZZ20AA REL 01

MARKETS: Applicable markets:

Canada
CALA
Asia/Pacific
Europe
US

ISSUE AUTHOR: NTI: William Stanley Dept. 3471 (PPK)

MAIN CONTACT: NTI: William Stanley Dept. 3471 (PPK)

NTZZ20AA EMB3-03-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 12 06	ECM 671 02	Convert the NT0X25AV Framework to NT0X25AH Framework. Update NTZZ20AA. Position '01' is not a valid mounting position for NT0X25AV and NT0X25AH framework.
93 11 11	ECM 671 03	Add U.S. market application.

The Digital Network Connecting Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Framework	NT0X25AH	FW	1			AP
Dgtl Net Intercon Frame	NT0X18CB	DNI	1			AP
Dgtl Net Junctor Cntg Pnl	NT0X18CA	NJC		XX		RUL1
Dgtl Net Junctor Cntg Pnl	NT0X18CC	NJC		XX		RUL2
Dgtl Net Junctor Cntg Pnl	NT0X18DB	NJC		XX		RUL3
Dgtl Net Junctor Cntg Pnl	NT0X18DC	NJC		XX		RUL4
Dgtl Net Junctor Cntg Pnl	NT0X18DD	NJC		XX		RUL5
Junctor Patch Cords	AR					RUL6
MD. Replaced by NT0X18DB.						
MD. Replaced by NT0X18DC.						

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The DNI provides space to mount a nominal 16 (max. 21, subject to cable congestion) digital network junctor connecting panels (NJC).
- 2) "XX" can be one of 71, 68, 64, 61, 57, 54, 50, 47, 43, 40, 36, 33, 29, 26, 22, 19, 15, 12, 08, 05, 01.

Update NTZZ20AA. Position '01' is not a valid mounting position for NT0X25AV and NT0X25AH framework

- 3) For small offices plane 0 and 1 may be combined within the same frame.

Plane 0 shelf positions are as follows:

71, 68, 64, 61, 57, 54, 50, 47, 43, 40

Plane 1 shelf positions are as follows:

36, 33, 29, 26, 22, 19, 15, 12, 08, 05, 01

Update NTZZ20AA. Position '01' is not a valid mounting position for NT0X25AV and NT0X25AH framework

- 4) One DNI frame is required for each 16 Network Modules (NM) per plane.
- 5) Maximum four (4) DNI frames per system.

RULES:

- AP 1) When PEC NTZZ20AA is ordered, these items are provided.
- RUL1 1) Provide one (1) Network Junctor Connecting Panel, NT0X18CA (MD) for each network frame, NT0X48AA (MD) and NT0X48AG (MD) equipped.
- RUL2 1) Provide two (2) Network Junctor Connecting Panels, NT0X18CC (MD), one per plane, for each network frame NT5X13AA equipped.
- RUL3 1) Provide one (1) Network Junctor Connecting Panel, NT0X18DB, for each network frame, NT0X48AA (MD) and NT0X48AG (MD) equipped.
- RUL4 1) Provide two (2) Network Junctor Connecting Panels, NT0X18DC, one per plane, for each network frame NT5X13AA equipped.
- RUL5 1) Provide two (2) Network Junctor Connecting Panels, NT0X18DD, per network i.e. one per network plane. This network is the type that is mounted on the Double Shelf Network Equipment (DSNE) frame. Check application date for DSNE.

- RUL6 1) Junctor patch cords are selected according to the running distance between the two ports which are to be interconnected.
- 2) NOTE: DNI and SLC patch cords are not interchangeable.
- 3) The following network junctor patch cords are required when cross connecting between NJC panels NT0X18CA/CC and NJC panels NT0X18CA/CC:

	LENGTH (FEET)	LENGTH (METRES)	CONNECTOR COLOUR	PRODUCT CODE (PEC)	PRODUCT CODE (CPC)
	0.5	.15	BL	NE-P4QCB	A0273266
	1.0	.30	Y	NE-P4QCC	A0273267
	1.5	.46	BK	NE-P4QCD	A0273268
	2.0	.61	R	NE-P4QCE	A0273269
	2.5	.76	G	NE-P4QCF	A0273270
	3.0	.91	W	NE-P4QCG	A0273271
	3.5	1.07	O	NE-P4QCH	A0273272
	4.0	1.22	BL	NE-P4QCJ	A0273273
	4.5	1.37	V	NE-P4QCK	A0273274
	5.0	1.52	Y	NE-P4QCL	A0273275
	5.5	1.68	BR	NE-P4QCM	A0273276
	6.0	1.83	BK	NE-P4QCN	A0273277
	6.5	1.98	R	NE-P4QCP	A0273278
	7.0	2.13	O	NE-P4QCR	A0273279
	7.5	2.29	BL	NE-P4QCS	A0273280
	8.0	2.44	G	NE-P4QCT	A0273281
	8.5	2.59	W	NE-P4QCU	A0273282
	9.0	2.74	V	NE-P4QCW	A0273283
	9.5	2.90	Y	NE-P4QCX	A0273284
	10.0	3.05	BR	NE-P4QCY	A0273285
	10.5	3.20	BK	NE-P4QDA	A0273286
	11.0	3.35	R	NE-P4QDB	A0273287
	11.5	3.51	G	NE-P4QDC	A0273288
	12.0	3.66	W	NE-P4QDD	A0273289

- 4) The following network junctor patch cords are required when cross connecting between NJC panels NT0X18CA/CC and NJC panels NT0X18DB/DC/DD:

LENGTH (FEET)		CONNECTOR COLOUR		PRODUCT CODE (CPC)
	(METRES)		(PEC)	
2.0	.61	BK-W	NE-P4QEW	A0289641
3.0	.91	BK-Y	NE-P4QEX	A0289642
4.0	1.22	BK-O	NE-P4QEY	A0289643
5.0	1.52	BK-R	NE-P4QFA	A0289644
6.5	1.98	BK-G	NE-P4QFB	A0289645
8.0	2.44	BK-BR	NE-P4QFC	A0289646
10.0	3.05	BK-W	NE-P4QFD	A0289647
15.0	4.57	BK-Y	NE-P4QFE	A0289648

- 5) The following network junctor patch cords are required when cross connecting between NJC panels NT0X18DB/DC/DD and NJC panels NT0X18DB/DC/DD:

LENGTH (FEET)		CONNECTOR COLOUR		PRODUCT CODE (CPC)
	(METRES)		(PEC)	
2.0	.61	BK-W	NE-P4QDY	A0289622
3.0	.91	BK-Y	NE-P4QEA	A0289623
4.0	1.22	BK-O	NE-P4QEB	A0289624
5.0	1.52	BK-R	NE-P4QEC	A0289625
6.5	1.98	BK-G	NE-P4QED	A0289626
8.0	2.44	BK-BR	NE-P4QEE	A0289627
10.0	3.05	BK-W	NE-P4QEF	A0289628
15.0	4.57	BK-Y	NE-P4QEG	A0289629

48 DS-30 BULKHEAD ASSEMBLY

NTZZ10DA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The 48 DS-30 Bulkhead Assembly provides filtering and connectivity for up to three (3) NT9X41BA, DS-30 Interface PB, per half shelf or six (6) per shelf. Intended for use in normal ENET applications.

REFERENCE DOCUMENTATION: NA

The 48 DS-30 Bulkhead Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filt Bulkh Pnl Left, 48 DS30	NT9X6520		1	XX		AP
Filt Bulkh Pnl Rgt, 48 DS30	NT9X6521		1	XX		AP

NOTE: 1) XX can be one of 00, 13, 26, or 39.

RULES:

AP 1) When PEC NTZZ10DA is ordered, these items are provided.

112 DS-30 BULKHEAD ASSEMBLY

NTZZ10EA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The 112 DS-30 Bulkhead Assembly provides filtering and connectivity for up to seven (7) NT9X41BA, DS-30 Interface PB, per half shelf or fourteen (14) per shelf. Intended for use in network upgrades where SLCs already exist and a significant proportion of speech links cannot be converted to DS-512 links.

REFERENCE DOCUMENTATION: NA

The 112 DS-30 Bulkhead Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Flt Bulkh Pnl Lft, 112 DS30	NT9X6530		1	XX		AP
Flt Bulkh Pnl Rgt, 112 DS30	NT9X6531		1	XX		AP

NOTE: 1) XX can be one of 00, 13, 26, or 39.

RULES:

AP 1) When PEC NTZZ10EA is ordered, these items are provided.

FIBER BULKHEAD ASSEMBLY

NTZZ10FA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Fiber Bulkhead Assembly is required for routing fiber cables, only, leaving the cabinet. No DS-30 filtering is provided. One (1) assembly is required per shelf when no NT9X41BA PBs are provided.

REFERENCE DOCUMENTATION: NA

The Fiber Bulkhead Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
I/F Panel Right Fiber Assy	NT9X6503		1	XX		AP
I/F Panel Left Fiber Assy	NT9X6506		1	XX		AP

NOTE: 1) XX can be one of 00, 13, 26, or 39.

RULES:

AP 1) When PEC NTZZ10FA is ordered, these items are provided.

STREAMLINE BULKHEAD ASSEMBLY

PEC CODE: NTZZ10PA

CPC CODE: B0242892

RATING: Standard

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The Streamline Bulkhead Assembly is required for routing cables in streamline cabinets. One NT9X8909 Bulkhead Assembly is required for either the left or right side. There are 14 cable connector positions on each bulkhead.

REFERENCE DOCUMENTATION:

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTC: Jerry Palmer DEPT. 3471 (PPK)

MAIN CONTACT: NTC: Jerry Palmer DEPT. 3471 (PPK)

NTZZ10PA EMB3-05-BKH-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 04 17	ECM 627 11	Initial release of section.
95 05 19	ECM 627 12	Correct CPC for EM section.

The Streamline Bulkhead Assembly is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Streamline Bulkhead Assy	NT9X8909		2	XX		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) XX can be one of 00, 13, 26, or 39.

RULES:

AP 1) When PEC NTZZ10PA is ordered, these items are provided.

QUAD DS-512 FIBER I/F PB

NTZZ10HA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Quad DS-512 Fiber I/F PB can terminate up to four (4) DS-512 fiber speech links.

REFERENCE DOCUMENTATION: NTZZ10HA REL 02
SLZZ10HA 00 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ10HA EMB3-05-IF-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 09 23	----- ECM 635 02	Previous history not available NT9X40BA is A&M and rep. by NT9X40BB

The Quad DS-512 Fiber I/F PB is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Quad DS-512 Fiber I/F PB	NT9X40BB		1	XX	YY	AP
DES LABEL (NT9X40BB)	P0734155		1	XX	YY	AP

NOTES:

- 1) XX can be one of 00, 13, 26, or 39.
- 2) YY can be one of 10R-16R, and 25R-32R.

RULES:

- AP 1) When PEC NTZZ10HA is ordered, these items are provided.

3 DS-512/16 DS-30 ENET I/F PB

NTZZ10MA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The 3 DS-512 /16DS-30 ENET I/F PB can terminate up to three (3) DS-512 fibre speech links and 16 DS-30 copper links.

| REFERENCE DOCUMENTATION: NTZZ10MA REL 01
SLZZ10MA 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ10MA EMB3-05-IF-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 09 23	----- ECM 635 02	Previous history not available Release level corrected in reldoc

The NTZZ10MA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
3 DS-512/16 DS-30 ENET I/F PB	NT9X45BA		1	XX	YY	AP
DES LABEL (NT9X45BA)	P0731527		1	XX	YY	AP
DS-512/DS-30 Cable Assembly	NT9X0524		1	XX	YY	AP

NOTES:

- 1) XX can be one of 00, 13, 26, or 39.
- 2) YY can be one of 10R-16R, and 25R-32R.

RULES:

- AP 1) When PEC NTZZ10MA is ordered, these items are provided.

16K X 16K CHAN TERM XPT CP

NTZZ10JA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The 16K x 16K Chan Term Xpt CP is used to terminate the Horizontal bus (H-bus). A minimum of two (2) and a maximum of four (4) CPs are required per shelf. One (1) CP is required for MS to Network shelf messaging while the remaining three (3) are used for speech link interface to peripherals.

REFERENCE DOCUMENTATION: NTZZ10JA REL 01
NTZZ10JA 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ10JA EMB3-05-XPT-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 09 23	----- ECM 635 02	Previous history not available Release level added in refdoc

The 16K x 16K Chan Term Xpt CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
16K x 16K Chan Term Xpt CP	NT9X35CA		2	XX	YF,Y+22F	AP
DES LABEL (NT9X35CA)	P0704533		2	XX	YF,Y+22F	AP

note

- 1) XX can be one of 00, 13, or 26 for 124K ENET
- 2) XX can be one of 00 26 for 64K ENET
- 3) Y can be assigned at slot 9 or 10. The F denotes the front side.

RULES:

AP 1) When PEC NTZZ10JA is ordered, these items are provided.

16K x 16K CHAN XPT CP

NTZZ10KA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The 16K x 16K Chan Xpt CP provides 16K x 16K channels cross-point plus the required logic to interface with four (4) DS-512 links or 16 DS-30 links from the associated paddle board.

REFERENCE DOCUMENTATION: NA

The 16K x 16K Chan Xpt CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
16K x 16K Chan Xpt CP	NT9X35BA		1	XX	YY	AP
DES LABEL (NT9X35BA)	P0704526		1	XX	YY	AP

NOTES:

- 1) XX can be one of 00, 13, 26, or 39.
- 2) YY can be one of 11-16 and 25-30.

RULES:

- AP 1) When PEC NTZZ10KA is ordered, these items are provided.

64K ENHANCED NETWORK

PEC CODE: NTZZ10NC

CPC CODE: B0245899

RATING: STD

REPLACES: NTZZ10NA, NTZZ10NB

REPLACED BY: Not Applicable

ABBREVIATION NAME: ENC

ENGINEERING DESCRIPTION: The 64K ENET Cabinet houses 2 Network planes in single cabinet. Each plane consists of 2 ENET shelves. Each shelf provides a nominal Switching capacity of 32K-channels. The NT9X05AD has the same functionality as the existing 128K ENET and is contained in an S/DMS cabinet.

REFERENCE DOCUMENTATION: NTZZ10NC REL 01
SLZZ10NC 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ10NC EMB3-06-006 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 08	ECM 635 17	New section to replace NTZZ10NA and NTZZ10NB. Cabinet block for 64K ENET. Show pending MD against NT9X41BA and NT9X13FA per Portfolio Simplification. Fix typo in above text, NT9X13FA is earmarked for MD status. MD the ENET processor card NT9X13FA (NTZZ10CC) per EC 018-49539. MD the DS-30 Interface PB (NTZZ10GA) per EC 018-50987. Remove the NTZZ10PA Streamline Bulk-heads from provisioning per GPRD.
96 04 04	ECM 635 18	
96 10 31	ECM 635 20	
97 01 07	ECM 635 21	
97 06 04	ECM 635 22	

The 64K ENHANCED NETWORK is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced Net. Duplex Cab.	NT9X05AD		1			AP
C42 Cabinet Mechanical Assy	NT9X95BA		1			AP-01
Network Shelf Assy	NT9X0818		2	13, 39		AP-01
Network Shelf Assy Pkg	NTZZ10BC		2	26, 00		RUL1
Blank Shelf Assembly	NT0X24BD		2	26, 00		RUL1
Filler Packfill	NT9X01FB		2	26, 00		RUL1
C42 FSP and CU (-48V)	NTZZ10CU		1	52		RUL15
C42 FSP and CU (-60V)	NTZZ10CW		1	52		RUL15
Global +5V Power Converter	NTZZ34PA		2	13, 39	4F, 36F	RUL16
Global -5V Power Converter	NTZZ34PC		2	13, 39	1F, 33F	RUL17
#8M CPU CP	NTZZ10CC		2	13, 39	7F, 7R	RUL18
16M CPU CP	NTZZ10CD		2	13, 39	7F, 7R	RUL18
Network Clock & Msg CP	NT9X36BA		2	13, 39	8F	AP
Filler Face Plate	NT9X19AA		16	13, 39	17F-24F	AP
16K x 16K Chan Term Xpt CP	NT9X35CA		8	13, 39	9F, 10F, 31F, 32F	AP
Quad DS-512 Fiber I/F PB	NT9X40BB		2	13, 39	8R	AP
PB Filler Face Plate	NT9X19BA		2	13, 39	9R	AP
PB Filler Face Plate	NT9X19BA		16	13, 39	17R-24R	AP
16K x 16K Chan Term Xpt CP	NTZZ10JA			00, 26	10F	RUL2
16K x 16K Chan Xpt CP	NTZZ10KA			XX	11-16, 25-30	RUL2
Filler Face Plate	NT9X19AA			XX	10F-16F 25F-32F	RUL3
#DS-30 Interface Assembly	NTZZ10GA			XX	10R-16R 25R-32R	RUL5
Quad DS-512 Fiber I/F PB	NTZZ10HA			XX	10R-16R 25R-32R	RUL4
PB Filler Face Plate	NT9X19BA			XX	10R-16R 25R-32R	RUL6
96 DS-30 Bulkhead Assembly	NTZZ10DA			XX		RUL7
224 DS-30 Bulkhead Assembly	NTZZ10EA			XX		RUL7
Fiber Bulkhead Assembly	NTZZ10FA			XX		RUL7
# Streamline Bulkhead Assy.	NTZZ10PA			XX		RUL7
3 DS-512/16 DS-30 I/F PB	NTZZ10MA			XX	10R-16R 25R-32R	RUL8
Terminal Block Des.Strip	P0831446		1			RUL10
Power Filter Labels	P0736059		1			RUL10
Optical Fiber Label (Eng.)	P0736273			XX		RUL10
Optical Fiber Label (Ger.)	P0737638			XX		RUL10

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Front Bottom Shelf Strip (Plane 0)	P0743003		1	39		AP
Shelf Strip Rear Top (Plane 0)	P0743005		1	39		AP
Rear Bottom Shelf Strip (Plane 0)	P0743009		1	39		AP
Front Top Desig. Strip (Plane 0)	P0743011		1	39		AP
Rear Shelf Desig. Label	P0704530		2	13, 39		AP
Front Bottom Shelf Strip (Plane 1)	P0743004		1	13		AP
Shelf Strip Rear Top (Plane 1)	P0743006		1	13		AP
Rear Bottom Shelf Strip (Plane 1)	P0743010		1	13		AP
Front Shelf Desig. label (Plane 1) Label	P0743012		1	13		AP
Horizontal Power Cab.kit	NT9X9531					RUL11
Stand-alone Power Cab. kit	NT9X9532					RUL11
C42 Cabinet Mechanical Assy	NT9X95BA					NOTE2
Cabinet Cable Turning Sect.	NT0X35CC					RUL14

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ10CC	MD	NTZZ10CD
NTZZ10PA	PEND	NTZZ10DA
NTZZ10GA	MD	NTZZ10MA

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES: 1) XX can be one of 00, 13, 26, and 39.

- 2) Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42 Cabinet.

RULES:

AP 1) When PEC NTZZ10NC is ordered, these items are provided.

- 2) The NT9X95BA contains the NT9X9575 Cabinet Framework.

The NT9X9575 framework provides earthquake and EMI protection. The framework is 72" high, 28" deep and 42" wide.

Refer to NT9X95BA (EMA4-07-001) for additional mechanical hardware requirements for C42 (S/DMS) Cabinet.

AP-01 1) This PEC is always provided on the NT9X05AD and is shown herein for completeness.

RUL1 1) Provide one (1) NTZZ10BC, Network Shelf Assy Pkg, for each additional network shelf required.

- 2) The shelf at position 39 for plane 0, and shelf at position 13 for plane 1 are always provided to the cabinet. Assign the remaining shelves to positions 26 for plane 0 and to position 00 for plane 1 respectively as required.

- 3) Each shelf provides switching for speech links interfacing up to 15 DS-512 fiber and DS-30 copper I/F PB.

- 4) Provide one (1) NT0X24BD Blank Shelf Assy for each unequipped position 26, and 00, to satisfy the forced air cooling requirements of the cabinet,

(OR)

- 5) Provide one (1) NT9X01FB Filler Packfill per each enhanced network shelf assembly when shelf is not equipped with circuit packs. Note, you require NT9X0818 Network shelf assembly to mount the filler packfill (NT9X01FB) in ENET shelves.

RUL2 1) Assign the first twelve (12) NTZZ10KA, 16K x 16K Chan Xpt CP, on the first shelf of each plane to adjacent slot pairs

in the following order: (30F-29F), (12F-11F), (28F-27F), (14F-13F), (26F-25F), (16F-15F).

It is a requirement that each ENET Shelf be fully equipped with X-Point CPs before another is started. Each X-Point CP need not have a PB behind it.

- 2) If subsequent shelves are required the Cross point card is assigned as follows: The first group of seven (7) Cross point CP's are assigned as follows: Refer to NTZZ10BA BB for the first assignment of NT9X35CAs in odd numbered slots 9F, and 31F. Assign the next six (6) NTZZ10KA CP's to odd slots 11F, 13F, 15F, 25F, 27F, and 29F. The next group of seven (7) Cross point CP's are assigned as follows: Assign one (1) NTZZ10JA, 16K x 16K Chan Term Xpt CP, to even numbered slots 10F and 32F. Assign six (6) NTZZ10KA CP's to even slots 12F, 14F, 16F, 26F, 28F, and 30F.

RUL3 1) Provide one (1) NT9X19AA, CP Filler Face Plate in each slot not equipped with a Circuit Pack to satisfy forced air cooling requirements of the cabinet.

RUL4 1) Provide one (1) NTZZ10HA Quad DS-512 Fiber Interface for every four (4) DS-512 fiber speech links to be terminated.

2) Fiber speech links originate from Series II peripherals (FXPMs)

3) Card slot assignment of NTZZ10HA follows the same assignment rules as the NT9X35 Crosspoint CP. NTZZ10HA can be mounted in any rear slot that has a NTZZ10JA or NTZZ10KA in the front slot. Card slot assignment for the first shelf is as follows: 10,32,31,30,29,12,11,28,27,14,13,26,25,16,15. The card slot assignment for subsequent shelves is: 31,11,13,15,25,27,29,10,32,12,14, 16,26,28,30.

RUL5 1) Each NTZZ10GA, DS-30 Interface Assembly, can terminate 16 DS-30 copper speech links or 15 DS-30 message links. Therefore, provide one (1) NTZZ10GA for every 16 DS-30 copper speech links or 15 single port PMs (i.e. TMs and MTMs). The NTZZ10GA (NT9X41BA) is now at MD status, replacement is the NTZZ10MA (NT9X45BA).

2) Copper speech links originate from Series I peripherals (DCMs, MTMs, etc) or from non-fiberized Series II peripherals.

3) Card slot assignment of NTZZ10GA follows the same assignment rules as the NT9X35 Crosspoint CP. NTZZ10GA can be

mounted in any rear slot that has a NTZZ10JA or NTZZ10KA in the front slot. Refer to Rule 2 and 5 for complete assignment rules.

- RUL6 1) Provide one (1) NT9X19BA, PB Filler Face Plate in each slot not equipped with a NTZZ10GA or NTZZ10HA or NTZZ10MA to satisfy the forced air cooling requirements of the cabinet.
- RUL7 1) Two bulkhead I/F panels are required for each equipped shelf position, one for the left cabinet cable riser and one for the right (cabinet viewed from the rear).
- 2) Provide one (1) NTZZ10FA, Fiber Bulkhead Assembly, if slots 10R-16R and 25R-32R are to be used for fiber interface only. No NT9X41BA CPs can ever be equipped in these slots.
- 3) If there are up to three (3) NT9X41BA/45BAs per half shelf, provide one (1) NTZZ10DA, 96 DS-30 Bulkhead Assembly. In this case, the DS-30 speech links terminating on the half shelf will be cabled directly to the Series I peripherals. In this case NT9X41BA/45BAs are restricted to a maximum of three (3) per half shelf, or six (6) per shelf assembly.
- 4) If there are more than three (3) NT9X41BA/45BAs per half shelf, provide one (1) NTZZ10EA, 224 DS-30 Bulkhead Assembly. In this case, the DS-30 speech links terminating on the half shelf will be cross connected at an SLC. In this case NT9X41BA/45BAs are restricted to a maximum of seven (7) per half shelf, or 14 per shelf assembly.
- 5) For Streamline applications only, provision:
one (1) NTZZ10PA Streamline Bulkhead Assembly.
- RUL8 1) Each NTZZ10MA, can terminate 3 DS-512 fiber links and 16 DS-30 copper speech links or 15 DS-30 message links. For Initial and ENET Upgrade (Retrofit) jobs provision NTZZ10MAs for a combination of 16 DS-30 copper and 3 DS-512 fiber links. For any remaining copper and fiber links, default termination to NTZZ10GAs and NTZZ10HAs respectively.
- RUL9 1) Reserved
- RUL10 1) Provide one (1) P0831446 terminal block designation strip per ENC cabinet when powering the enhanced network cabinet in a streamline lineup.

- 2) Provide one (1) P0736059 power filter label per ENC cabinet when powering the enhanced network cabinet in a stand-alone lineup.
 - 3) Provide one (1) P0736273 Optical Fiber Danger Label (English) per shelf when DS-512 Fiber paddle boards are provided. Provide the English label for applications in English speaking countries.
 - 4) Provide one (1) P0737638 Optical Fiber Danger Label (German) per shelf when DS-512 Fiber paddle boards are provided. Provide the German label for applications in German speaking countries.
- RUL11 1) Provide one (1) NT9X9532 stand-alone Cabling Interface Kit when powering the NT9X05AD cabinet from the 7 foot PDC frame OR powering from the new CPDC (NTRX31CA) cabinet, OR powering from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the different lineup than the NT9X05AD. This kit includes cables, filters, and miscellaneous mounting hardware.
- 2) Provide one (1) NT9X9531 Horizontal Power Cabling Interface Kit when powering the NT9X05AD cabinet from the NTRX31AA or from the NTRX31BA CPDC cabinet which is in the same lineup as the NT9X05AD. This kit includes power cables, terminal blocks, and miscellaneous mounting hardware.
- RUL12 1) Reserved.
- RUL13 1) Reserved.
- RUL14 1) Provide CCTS as required.

The NT0X35CC (CCTS) mounts on the left and/or right side of a ENC cabinet. The CCTS provides a larger cabling area for cables connected between cabinets and frames. Cable is intended to run down (or up) this cabinet, and enter the large holes in the side of the SuperNode, ENC, etc. cabinet to reach the connector bulkheads.

The NT0X35CC MUST be provisioned for ALL 64K installations.

The number of cabling cabinets required for 64K ENET (NT9X05AD) must be 2 (See figure below).

From 64K ENET to 128K ENET upgrade refer to ECM 627.

If not initially installed with ENET, CCTS Cabinets cannot be added at a later date.

Rear

END PNL Assy	CCTS Cabinet NT0X35CC	ENC PL.0 & 1 NT9X05AD	CCTS Cabinet NT0X35CC	END PNL Assy

Front

- RUL15 1) Provide one (1) NTZZ10CU C42 FSP and Cooling Unit (-48V) per cabinet for markets requiring -48V input.
OR
- 2) Provide one (1) NTZZ10CW C42 FSP and Cooling Unit (-60V) per cabinet for markets requiring -60V input, currently only Germany and Austria applications use -60V.
- RUL16 1) Provide one (1) NTZZ34PA Global +5V Power Converter for each ENET shelf required. One NTZZ34PA provides two power converters, powering a single shelf.
- RUL17 1) Provide one (1) NTZZ34PC Global -5V Power Converter for each ENET shelf required. One NTZZ34PC provides two power converters, powering a single shelf.
- RUL18 1) Provide one (1) NTZZ10CD 16M CPU for each ENET shelf as required. The NT9X13KA requires CSP0004 software, and ENET shelves at CSP0006(NA004) require the NT9X13KA processor. The NT9X26AB Remote Terminal Interface CP is included in the package. NOTE: The NT9X13FA is now MD and is replaced by the NT9X13KA.

ENHANCED NETWORK SHELF ASSEMBLY PACKAGE

PEC CODE: NTZZ10BC

CPC CODE: B0245894

RATING: Standard

REPLACES: NTZZ10BA/NTZZ10BB

REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Network Shelf Assembly provides switching for speech links interfacing up to 15 DS-512 fiber and DS-30 copper I/F PB. Each shelf provides a nominal Switching capacity of 32K-channels.

REFERENCE DOCUMENTATION: NTZZ10BC REL 01
SLZZ10BC 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ10BC EMB3-06-007 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 08	ECM 635 17	New section. Main function to add an additional shelf for a 64K or 128K ENET.
96 07 22	ECM 627 18	Correct typos for PEC quantities.
97 01 07	ECM 635 21	MD the ENET processor card NT9X13FA (NTZZ10CC) per EC 018-49539.

The Enhanced Network Shelf Assembly Package is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Shelf Assy	NT9X0818		1	XX		AP
Global +5V Power Converter	NTZZ34PA		1	XX	4F, 36F	RUL1
Global -5V Power Converter	NTZZ34PC		1	XX	1F, 33F	RUL2
# 8M CPU CP	NTZZ10CC		1	XX	7F, 7R	RUL3
16M CPU CP	NTZZ10CD		1	XX	7F, 7R	RUL3
Network Clock & Msg CP	NT9X36BA		1	XX	8F	AP
16K x 16K Chan Term Xpt CP	NT9X35CA		2	XX	9F, 31F	AP
Filler Face Plate	NT9X19AA		8	XX	17F-24F	AP
Quad DS-512 Fiber I/F PB	NT9X40BB		1	XX	8R	AP
PB Filler Face Plate	NT9X19BA		1	XX	9R	AP
Screws & Washers	P097F813		4	XX		AP
	P0284154		1	XX		AP
	P0183220		1	XX		AP
V-Bus Cable Assembly	NT9X0530		16	XX	9R-16R, 25R-32R	AP
PB Filler Face Plate	NT9X19BA		8	XX	17R-24R	AP
Front Bottom Shelf Strip (Plane 0)	P0743003		1	XX		RUL4
Shelf Strip Rear Top (Plane 0)	P0743005		1	XX		RUL4
Rear Bottom Shelf Strip (Plane 0)	P0743009		1	XX		RUL4
Front Top Desig. Strip (Plane 0)	P0743011		1	XX		RUL4
Rear Shelf Desig. Label	P0704530		1	XX		RUL4
Front Bottom Shelf Strip (Plane 1)	P0743004		1	XX		RUL4
Shelf Strip Rear Top (Plane 1)	P0743006		1	XX		RUL4
Rear Bottom Shelf Strip (Plane 1)	P0743010		1	XX		RUL4
Front Shelf Desig. label (Plane 1) Label	P0743012		1	XX		RUL4
Optical Fiber Label (Eng.)	P0736273			XX		RUL4
Optical Fiber Label (Ger.)	P0737638			XX		RUL4

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT9X13FA	MD	NT9X13KA

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ10BC is ordered, these items are provided.

RUL1 1) Provide one (1) NTZZ34PA Global +5V Power Converter for each ENET shelf required. One NTZZ34PA provides two power converters, powering a single shelf.

RUL2 1) Provide one (1) NTZZ34PC Global -5V Power Converter for each ENET shelf required. One NTZZ34PC provides two power converters, powering a single shelf.

RUL3 1) Provide one (1) NTZZ10CD 16M CPU for each ENET shelf as required. The NT9X13KA requires CSP0004 software, and ENET shelves at CSP0006(NA004) require the NT9X13KA processor. The NT9X26AB Remote Terminal Interface CP is included in the package. NOTE: The NT9X13FA is now MD and is replaced by the NT9X13KA.

RUL4 1) Provide one (1) each of P0743003, P0743011, P0743005 and P0743009 for each plane 0 NT9X0818 Enhanced Network Shelf Assy.

2) Provide one (1) each of P0743004, P0743006, P0743012 and P0743010 for each plane 1 NT9X0818 Enhanced Network Shelf Assy.

- 3) Provide one (1) P0704530 label for each additional NT9X0818 Enhanced Network Shelf Assy.
- 4) Provide one (1) P0736273 Optical Fiber Danger Label (English) per shelf when DS-512 Fiber paddle boards are provided. Provide the English label for applications in English speaking countries.
- 5) Provide one (1) P0737638 Optical Fiber Danger Label (German) per shelf when DS-512 Fiber paddle boards are provided. Provide the German label for applications in German speaking countries.

C42 FSP AND COOLING UNIT (-48V)

PEC CODE: NTZZ10CU

CPC CODE: B0245897

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The C42 FSP AND COOLING UNIT provides the cooling unit and the Frame Supervisory Panel used in all -48V applications.

REFERENCE DOCUMENTATION: SLZZ10CU REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ10CU EMB3-06-008 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 03 08	----- ECM 635 17	Previous history not available New section created for C42 Cooling Unit and FSP (-48V).

The 64K ENHANCED NETWORK is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT9X03AA	FSP	1	52		AP
Cooling Unit	NT9X95CU		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ10CU is ordered, these items are provided.

C42 FSP AND COOLING UNIT (-60V)

PEC CODE: NTZZ10CW

CPC CODE: B0245898

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The C42 FSP and COOLING UNIT provides the cooling unit and the Frame Supervisory Panel used in all -60V applications.

REFERENCE DOCUMENTATION: SLZZ10CW REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ10CW EMB3-06-009 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 03 08	----- ECM 635 17	Previous history not available New section created for C42 Cooling Unit and FSP (-60V).
96 04 04	ECM 635 18	Corrected equipment list header.

| The C42 FSP AND COOLING UNIT (-60V) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT9X03BA	FSP	1	52		AP
Cooling Unit	NT9X95GU		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ10CW is ordered, these items are provided.

ENET 16M CPU

PEC CODE: NTZZ10CD

CPC CODE: B0245896

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The ENET 16M CPU provides the Central Processing Unit (CPU) and the associated Remote Terminal Interface circuit packs.

REFERENCE DOCUMENTATION: SLZZ10CC REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ10CD EMB3-06-011 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 03 07	----- ECM 635 17	Previous history not available New section created for ENET 16M CPU and RTIF circuit packs.
96 03 28	ECM 632 18	Changed mounting for SNSE.

The ENET 16M CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPU CP	NT9X13KA		1	XX	YY	AP
Remote Terminal I/F PB	NT9X26AB		1	XX	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ10CD is ordered, these items are provided.

97/12/09

EMB4

CENTRAL CONTROL SUBSYSTEM CHAPTER ALL

CENTRAL CONTROL SUBSYSTEM CHAPTER ALL

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CENTRAL CONTROL SUBSYSTEM CHAPTER ALL

EMB4-02-SLM-3	SLM COMMON CP	NTZZ01BC
EMB4-02-SLM-5	SYSTEM LOAD MODULE III	NTZZ34JC
EMB4-03-CLK-1	DMS SYSTEM CLOCK	NTZZ34JD
EMB4-03-CPU-10	SNSE MS PROCESSOR	NTZZ34JF
EMB4-03-CPU-11	SN/SNSE BRISC SR70EM CPU	NTZZ01SP
EMB4-03-CPU-2	SUPERNODE SERIES 20 CPU	NTZZ01GA
EMB4-03-CPU-3	SUPERNODE SERIES 30 CPU	NTZZ01HA
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EMB4-03-CPU-6	SUPERNODE BRISC 50/60 CPU	NTZZ01SB
EMB4-03-CPU-7	SUPERNODE BRISC 70 CPU	NTZZ01SM
EMB4-03-CPU-8	SUPERNODE BRISC 50/50MX/60 CPU	NTZZ01SC
EMB4-03-CPU-9	SNSE SERIES 20 PROCESSOR	NTZZ34JE
EMB4-03-FFP-1	I/F FILLER FACE PLATE	NTZZ01EA
EMB4-03-IF-10	INITIAL ENHANCED NETWORK INTERFACE - 128	NTZZ01NN
EMB4-03-IF-3A	INITIAL ENHANCED NETWORK INTERFACE	NTZZ01NB
EMB4-03-IF-4	INTERMEDIATE ENHANCED NETWORK INTERFACE	NTZZ01PA
EMB4-03-IF-5	FINAL ENHANCED NETWORK INTERFACE	NTZZ01QA
EMB4-03-IF-6	LINK INTERFACE FOR FLIS	NTZZ01ZA
EMB4-03-IF-8	FINAL ENHANCED NETWORK INTERFACE - 128 P	NTZZ01QM
EMB4-03-MEM-2	24 MBYTE MEMORY	NTZZ01LA
EMB4-03-MS-1	16M MS PROCESSOR AND RTIF	NTZZ01TM
EMB4-03-004	4 PORT NETWORK & IOC I/F FOR BCS34 & ABV	NTZZ01CB
EMB4-03-005	4 PORT LIM/LPP INTERFACE - BCS34 & ABOV	NTZZ01DB
EMB4-03-006	4 PORT NET.& IOC I/F FOR CAB. DMS - BCS4	NTZZ01UB
EMB4-03-007	4 PORT LIM/LPP I/F FOR CAB. DMS - BCS34&	NTZZ01VB
EMB4-04-APC-7	APC (APPLICATION PROCESSOR CABINET)	NT9X80CA
EMB4-04-APL	APC AP LEFT (C/42)	NTZZ35QA
EMB4-04-APR	APC AP RIGHT (C/42)	NTZZ35SA
EMB4-04-FPL	APC FP LEFT (C/42)	NTZZ35RA
EMB4-04-FPR	APC FP RIGHT (C/42)	NTZZ35TA
EMB4-04-SDF-1	APC SD FULL (GLOBAL PWR-C/42)	NTZZ35ZA
EMB4-04-SDL-1	APC SD LEFT (GLOBAL PWR-C/42)	NTZZ35XA
EMB4-04-SDR-1	APC SD RIGHT (GLOBAL PWR-C/42)	NTZZ35YA
EMB4-05-BUL	SUPERNODE BULKHEAD PANEL ASSY	NTZZ13MA
EMB4-05-001	SUPERNODE CABINET (C42)	NTZZ01RG
EMB4-06-ENI-4	DMS SUPERNODE SE ENI F-BUS COMMON CP	NTZZ34GB
EMB4-06-ENI-5	DMS SNSE 4K ENET	NTZZ34FB
EMB4-06-IF-1	DMS SUPERNODE SE	NTZZ34CA
EMB4-06-IF-2	DMS SUPERNODE SE	NTZZ34DA
EMB4-06-IF-3	DMS SUPERNODE SE	NTZZ34JA
EMB4-06-LIS-4	DMS SUPERNODE SE LIS COMMON CP	NTZZ34EC
EMB4-06-PWR-1	GLOBAL +5V POWER CONVERTER	NTZZ34PA
EMB4-06-PWR-2	GLOBAL REDUNDANT POWER CONVERTER	NTZZ34PB
EMB4-06-PWR-3	GLOBAL +5V POWER CONVERTER	NTZZ34PC
EMB4-06-PWR-5	GLOBAL +5/-5V POWER CONVERTER	NTZZ34PE
EMB4-06-PWR-6	GLOBAL +5/+12V POWER CONVERTER	NTZZ34PF
EMB4-06-011	DMS SUPERNODE SE	NTZZ34AH

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EMB4

CENTRAL CONTROL SUBSYSTEM CHAPTER ALL

SLM COMMON CP

PEC CODE: NTZZ01BC

CPC CODE: B0246026

| RATING: Standard

REPLACES: NTZZ01BB

REPLACED BY: Not Applicable

ABBREVIATION NAME: SLM

ENGINEERING DESCRIPTION: The System Load Module Common CP contains the circuit packs and miscellaneous items that are always required and provisionable for a SLM.

REFERENCE DOCUMENTATION: SLZZ01BC 00 01

NTZZ01BC REL 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Scott Maggiolo Dept. 3471 (PPK)

MAIN CONTACT: NTI: Scott Maggiolo Dept. 3471 (PPK)

NTZZ01BC EMB4-02-SLM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 22	ECM 626 30	Initial creation of section.

The SLM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CM BUS Extender	NT9X27AA		2	13	8R, 31R	AP
CPU Port CP	NT9X12AD		2	00	18F, 21F	AP
SLM Common CP	NT9X07AC		1	00		AP
Filler Face Plate	NT9X19AA		8	00	7F, 16F, 17F, 19F, 20F, 22F, 23F, 32F	AP-01
CM BUS Extension PB	NT9X27BA		2	00	7R, 32R	AP-01
Parallel Port I/F PB	NT9X46AA		4	00	8R, 18R 21R, 24R	AP-01
CM Subys Clock PB	NT9X22CA		2	00	16R, 23R	AP-01
CM BUS Terminator PB	NT9X21AA		2	00	19R, 22R	AP-01
Pddle Brd Fllr Face Plt	NT9X19BA		16	00	9R-15R, 17R, 20R, 25R-31R	AP-01
CM P-Bus EXTN Cable	NT9X0167		2	00		AP-01
CM P-Bus EXTN Cable	NT9X0757		6	00		AP-01

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTZZ01BC is ordered, these items are provided.
- AP-01 1) This PEC is always provided on the NT9X07AC SLM Common CP,
and is indicated here for completeness.

SYSTEM LOAD MODULE III

PEC CODE: NTZZ34JC

CPC CODE: B0246099

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: SLMIII

ENGINEERING DESCRIPTION: The NTZZ34JC provides a System Load Module III for the C42 cabinets.

REFERENCE DOCUMENTATION: SLZZ34JC 00 01
NTZZ34JC REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ34JC EMB4-02-SLM-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 28	ECM 632 18	First issue of section. Introduce the System Load Module III for C42 Cabinet applications.

The System Load Module 1A is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
System Load Module III	NT9X44AD		2	XX		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ30JC is ordered, these items are provided.

DMS SYSTEM CLOCK

PEC CODE: NTZZ34JD

CPC CODE: B0246095

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ34JD provides (2) DMS-Bus System
Clock CP.REFERENCE DOCUMENTATION: SLZZ34JD 00 01
NTZZ34JD REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

| ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ34JD EMB4-03-CLK-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 28	ECM 632 18	First issue of section. Introduce MS Processor block for SNSE.

The DMS System Clock is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS-Bus System Clock CP	NT9X53AC		2	XX	YY	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ30JD is ordered, these items are provided.

SNSE MS PROCESSOR

PEC CODE: NTZZ34JF

CPC CODE: B0246097

RATING: STD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NTZZ34JF provides the MS Processor and the RTIP CP for SNSE.

REFERENCE DOCUMENTATION: SLZZ34JF 00 01
NTZZ34JF REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe
Carrier
Wireless

| ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ34JF EMB4-03-CPU-10 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 03 28	ECM 632 18	First issue of section. Introduce MS processor and RTIF for SNSE.
96 05 22	ECM 632 19	Correct mis-typed change history.

The SNSE MS Processor is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MS Processor CP	NT9X13NA		2	XX	17F, 22F	AP
RTIF Paddle Board	NT9X26AB		2	XX	17R, 22R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ30JF is ordered, these items are provided.

SN/SNSE BRISC SR70EM CPU

PEC CODE: NTZZ01SP

CPC CODE: B0248593

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: NTZZ01SP

ENGINEERING DESCRIPTION: NTZZ01SP contains the SN/SNSE BRISC 70EM CPU and Paddleboard which may be used on the SuperNode or SNSE cabinet.

REFERENCE DOCUMENTATION: SLZZ01SP 00 01

NTZZ01SP REL 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Jerry Palmer Dept. 3471 (PPK)

NTZZ01SP EMB4-03-CPU-11 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 02 25	ECM 632 23	Create Section.

The SN/SNSE BRISC SR70EM CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
88110 BRISC CPU (SR70EM) CP	NT9X10CA		2	XX	19F-20F	AP
Des. Label (NT9X10CA)	P0865776		2	XX	19F-20F	AP
BRISC RTIF PB	NT9X26FA		2	XX	19R-20R	AP
Des. Label (NT9X26FA)	P0865777		2	XX	19R-20R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ01SP is ordered, these items are provided.

SUPERNODE SERIES 20 CPU

NTZZ01GA

RATING: Standard

ABBREVIATION NAME: NTZZ01GA

ENGINEERING DESCRIPTION: NTZZ01GA contains the SuperNode Series 20 CPU Processor CP and designation label.

REFERENCE DOCUMENTATION: SLZZ01GA 00 03

NTZZ01GA REL 03

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

NTZZ01GA EMB4-03-CPU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available

The Supernode Series 20 CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPU 68030 Series 20 CP	NT9X13BC		2	13	19F-20F	AP
Des Label (NT9X13BC)	P0696235		2	13	19F-20F	AP
Remote Term I/F Curr Loop	NT9X26AB		2	13	19R-20R	AP
Desig. Label(NT9X26AB)	P0705003		2	13	19R-20R	AP

RULES:

AP 1) When PEC NTZZ01GA is ordered, these items are provided.

SUPERNODE SERIES 30 CPU

PEC CODE: NTZZ01HA

CPC CODE: B0232997

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

| ABBREVIATION NAME: NTZZ01HA

ENGINEERING DESCRIPTION: NTZZ01HA contains the SuperNode Series 30
CPU Processor CP and designation label.REFERENCE DOCUMENTATION: SLZZ01HA 00 03
NTZZ01HA REL 03

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: Kirit Patel Dept. S646 (PPK)

MAIN CONTACT: David Terwey Dept. 3471 (PPK)

NTZZ01HA EMB4-03-CPU-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 10 20	ECM 626 11	ET41133 - Correct Abbreviation Name.

The Supernode Series 30 CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPU 68030 Series 30 CP	NT9X13GA		2	13	19F-20F	AP
Des Label (NT9X13GA)	P0705929		2	13	19F-20F	AP
Remote Term I/F Curr Loop	NT9X26AB		2	13	19R-20R	AP
Desig. Label(NT9X26AB)	P0705003		2	13	19R-20R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ01HA is ordered, these items are provided.

SUPERNODE SERIES 40 CPU

NTZZ01JA

RATING: Standard

ABBREVIATION NAME: NTZZ01JA

ENGINEERING DESCRIPTION: NTZZ01JA contains the SuperNode Series 40
CPU Processor CP and designation label.

REFERENCE DOCUMENTATION: SLZZ01JA 00 04

NTZZ01JA REL 04

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

NTZZ01JA EMB4-03-CPU-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available

The Supernode Series 40 CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPU 68030 Series 40 CP	NT9X13HB		2	13	19F-20F	AP
Des Label (NT9X13HB)	P0713211		2	13	19F-20F	AP
Remote Term I/F Curr Loop	NT9X26AB		2	13	19R-20R	AP
Desig. Label(NT9X26AB)	P0705003		2	13	19R-20R	AP

RULES:

AP 1) When PEC NTZZ01JA is ordered, these items are provided.

SUPERNODE BRISC 50/60 CPU

PEC CODE: NTZZ01SB

CPC CODE: B0241494

RATING: Standard

REPLACES: NTZZ01SA

REPLACED BY: Not Applicable

ABBREVIATION NAME: NTZZ01SB

ENGINEERING DESCRIPTION: NTZZ01SB contains the SuperNode BRISC 50/60 CPU and Paddleboard used for SuperNode Applications. The SNSE will use only the BRISC 60 CPU and Paddleboard.

REFERENCE DOCUMENTATION: SLZZ01SB 00 01

NTZZ01SB REL 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Scott Maggiolo Dept. 3471 (PPK)

NTZZ01SB EMB4-03-CPU-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 09 02	ECM 626 20	Create Section.
95 04 06	ECM 626 24	MD Section.
95 07 11	ECM 626 25	Restore section because of unavailability of replacement.
96 03 28	ECM 632 18	Allow functionality for C42 use.
96 05 22	ECM 632 19	Show SN and SE functionality.

The SUPERNODE BRISC 50/60 CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
33 MHz 88000 BRISC CPU CP	NT9X10AA		2	XX	19F-20F	AP
Des. Label (NT9X10AA)	P0734152		2	XX	19F-20F	AP
BRISC RTIF PB	NT9X26DB		2	XX	19R-20R	AP
Des. Label (NT9X26DB)	P0747896		2	XX	19R-20R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ01SB is ordered, these items are provided.

SUPERNODE BRISC 70 CPU

PEC CODE: NTZZ01SM

CPC CODE: B0242461

RATING: Standard

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: NTZZ01SM

ENGINEERING DESCRIPTION: NTZZ01SM contains the BRISC 70 CPU and Paddleboard, which have applications on either the SuperNode or SuperNode SE.

REFERENCE DOCUMENTATION: SLZZ01SF 00 01

NTZZ01SM REL 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Scott Maggiolo Dept. 3471 (PPK)

NTZZ01SM EMB4-03-CPU-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 02 09	ECM 626 23	Create Section.
96 03 28	ECM 632 18	Allow functionality for C42 cabinets.
96 05 22	ECM 632 19	Show use in both SuperNode and SNSE.

The SUPERNODE BRISC 70 CPU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
60 MHz 88100 BRISC CPU CP	NT9X10BA		2	XX	19F-20F	AP
Des. Label (NT9X10BA)	P0806211		2	XX	19F-20F	AP
BRISC RTIF PB	NT9X26EA		2	XX	19R-20R	AP
Des. Label (NT9X26EA)	P0806223		2	XX	19R-20R	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTZZ01SM is ordered, these items are provided.

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December 1997

DMS-100 Family
North American DMS-100
ALL PRODUCTS COMPUTING-MODULE LOADS Vol 8 of 15

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