DIGITAL TRANSMISSION SYSTEM

828A DIGITAL MULTIPLEXER

PARTS LIST AND ORDERING INFORMATION

1.   GENERAL

1.01   This section is a cover sheet for the Telco Systems Fiber Optics Corporation Digital Transmission System 828A Digital Multiplexer Parts List and Ordering Information. This section is reproduced with permission of Telco Systems Fiber Optics Corporation and is the equivalent of Telco practice 828-102-003, Issue 3.

1.02   Whenever this section is reissued the reason(s) for reissue will be listed in this paragraph.

1.03   This section presents a parts list for the 828A Digital Multiplexer, including options, accessories, and cables.

1.04   If corrections are required in the attached document, use Form-3973 as described in Section 000-010-015.

1.05   If equipment design and/or manufacturing problems should occur, refer to Section SW 010-522-906 for procedures on filing an Engineering complaint.

2.   ORDERING PROCEDURE

2.01   For information concerning equipment and parts availability contact Telco Systems, Order Administration Department, in Norwood, Massachusetts, at:

1-800-44-SALES

1-617-551-0300

2.02   To order additional copies of this practice, use TELC 365-407-843SW as the section number.

Attachment: Telco Systems Fiber Optics Corporation
               Digital Transmission System
               828A Digital Multiplexer
               Parts List and Ordering Information

PROPRIETARY

DIGITAL TRANSMISSION SYSTEM
828A DIGITAL MULTIPLEXER
PARTS LIST AND ORDERING INFORMATION

1. SCOPE

1.01 This section presents a parts
      list for the 828A Multiplexer,
including options, accessories and
cables. In addition, this section also
provides general parts ordering
information.

1.02 This section is reissued to
      include the LTU, Optional MPU II,
RAC-II, T1/B8ZS cards and an extended
temperature Fuse and Alarm Panel.

2. PARTS LIST

2.01 TABLE A provides ordering infor-
      mation for the 828A multiplexer.

Required ordering information for
828A options is contained in TABLE B.
Required ordering information for
accessories is contained in TABLE C.
Required ordering information for
cables is contained in TABLE D.

3. ORDERING INFORMATION

3.01 For information concerning 828A
      equipment and parts availability
contact the Telco Systems Order Admin-
istration Department in Norwood,
Massachusetts at:

1-800-44-SALES
617-551-0300

3.02 A valid Purchase Order Number
      must be provided at the time the
order is placed.

3.03 Alternatively, a Telco Systems
      Telephone Equipment Order form
(see Figure 3-1) accompanied by a valid
Purchase Order Number can be sent to
the Order Administration Department.

TABLE A. 828A Multiplexer Assembly and Part Number List

DESCRIPTION	PART NUMBER	QUANTITY
1. BASIC EQUIPMENT CONFIGURATION		
The following parts and quantities are required regardless of 828A system applications.		
CAGE ASSEMBLY	CCA026G3	1
POWER SUPPLY MODULE (–48 or –24 Vdc)		2
–48 Vdc	PSX016-1	
–24 Vdc	PSX016-2	
LS INTER T1 CARD*		Up to 7
Configures T1 AIS to be all ones	CCA050G1	
Configures T1 AIS to be all zeros	CCA124G1	
B8ZS/AMI switch selectable	CCA161G2	
LS INTER T1C CARD*	CCA006G1	Up to 7
HIGH-SPEED COMMON CARD	CCA120G1	2 for Protected
W/ DS-3 X-bit TELTRAC bridge capability	CCA120G2	1 for Unprotected
WLEL CARD	CCA118G1	2 for Protected
		1 for Unprotected
CONTROL MPU CARD		1
Standard (w/FOX-2/2R, obsolete 8/30/88)	CCA137G20	
Standard (w/FOX-2/2R, TELTRAC)	CCA162G1	
Standard (w/FOX-2/2R, TELTRAC, TBOS)	CCA162G2	
(Available 9/88)		
2. PREEMPHASIS/BUILDOUT NETWORKS		
The following modules and quantities are required to maintain industry-standard waveforms at the DSX-1/1C cross-connect.		
T1 PREEMPHASIS/BUILDOUT NETWORKS		1 per
(Cable length to DSX-1) and SIP Resistors	Buildout	LS INTER T1 card
0 - 100 feet (RNX003-3)	None Req.	
101 - 300 feet (RNX003-2)	CCA062G1	
301 - 655 feet (RNX003-1)	CCA062G2	

* At least one T1 or T1C card is required to provide remote multiplexer communications.

TABLE A.   828A Multiplexer Assembly and Part Number List (Cont.)

DESCRIPTION	PART NUMBER	QUANTITY
2. PREEMPHASIS/BUILDOUT NETWORKS (Cont.)		
T1C PREEMPHASIS/BUILDOUT NETWORKS		1 per
(Cable length to DSX-1C) and SIP Resistor	Buildout	LS INTER T1C card
0 - 100 feet (RNX003-3)	None Req.	
101 - 250 feet (RNX003-2)	CCA062G10	
251 - 400 feet (RNX003-2)	CCA062G11	
401 - 550 feet (RNX003-1)	CCA062G12	
551 - 655 feet (RNX003-1)	CCA062G13	
BUILDOUT MODULE		
(Cable Length Mux to DSX-3)		1 per WLEL card
0 - 100 feet	1070599G1	
101 - 200 feet	1070599G2	
201 - 300 feet	1070599G3	
301 - 400 feet	1070599G4	
401 - 450 feet	1070599G5	
3. FUSE AND ALARM PANELS		
-48 Vdc	ACX025G1	1 per 12 828As, or
-24 Vdc	ACX025G3	1 per 7-foot rack
-48 Vdc	ACX043G1	1 per 6 828As, or
		1 per 7-foot rack

TABLE B. 828A Multiplexer Equipment Options

DESCRIPTION	PART NUMBER	QUANTITY

1. LOW-SPEED DS-2 ELECTRICAL AND OPTICAL
      INTERFACES
 	
      The following parts are required to support
      each electrical or optical interface.
 	
        T2 LOW-SPEED INTERFACE CARD
          MAIN
          STBY*
 	
        LTU LOW-SPEED (DS-2 OPTICAL) CARD
          SM, MAIN
          SM, STBY*
          MM, MAIN
          MM, STBY*
 	
2. BUILDOUT NETWORKS
 	
      The following modules and quantities are
      required to maintain industry-standard
      waveforms at the DSX-2 cross-connect.
 	
        BUILDOUT MODULES
          (Cable Length to DSX-2)
              0 - 200 feet
            201 - 400 feet
            401 - 600 feet
            601 - 800 feet
            801 - 1000 feet
	
	CCA007G1
	CCA068G1
	
	CCA148G1
	CCA149G1
	CCA148G2
	CCA149G2
	
	AXX029G5
	AXX029G4
	AXX029G3
	AXX029G2
	AXX029G1
		
		Up to 6
		
		Up to 6
		
		1 per
		LS INTER T2 card

* STBY cards are used if 1:1 protection of the channel is desired.

TABLE C. 828A Equipment Accessories

DESCRIPTION	PART NUMBER	QUANTITY
MANUAL CONTROL INTERFACE CARD (Note 1)	CCA008G2	

MAINTENANCE KIT
  −48 Vdc, with MIC
  −48 Vdc, without MIC
	AXX072G1
	AXX072G6	

MIC (Maintenance Interface Card) (Note 2)	CCA058G1E	
RAC−II (Remote Alarm Card II) Card (Note 3)	CCA158G1E	
OPTIONAL MPU−II CARD (Note 4)	CCA135G1	
T1 MONITOR CARD (Note 5)	CCA176G1	

FUSE AND RELAY KIT (Spare)
  −48 Vdc
  −24 Vdc
	AXX004G1
	AXX004G2	

CEV CONVERSION KIT (contains the BNC bracket and Cable Support)	AXX067G1	
CEV SHELF KIT (contains the CEV Shelf)	AXX068G1	
AIR BAFFLE	FA088−1	
AIR BAFFLE/FIBER TROUGH − to be installed in rack as required for use with more than 3 pairs (MAIN and STBY) of LTU Cards.	ACX033G1	

RELAY RACK
  7−feet x 23−inches
  9−feet x 23−inches
  11.5−feet x 23−inches
	FAR004−3
	FAR004−7
	FAR004−12	

FUNCTIONALITY:
Note 1: Module performs LED tests, low−speed loopback, high−speed BER
         reporting, low−speed error second reporting, and manual switching for
         both Local and Remote sites.
Note 2: Module capable of testing or replacing T1 or T1C Low−Speed Interface
         cards on−line.
Note 3: Module performs TELTRAC bridging and provides eight alarm points, and
         monitors eight alarm or status points.
Note 4: Allows TELTRAC communication with FOX−2/FOX−2R. Allows RAC−II Remote
         Alarm functionality from Remote FOX−2/FOX−2R units to Local 828A.
Note 5: Module is capable of monitoring or bridging T1 or T1C signals.

TABLE C. 828A Equipment Accessories (Cont.)

DESCRIPTION	PART NUMBER	QUANTITY
DSX-1 CROSS-CONNECT PANEL		As required
56 Ckt, 23", BANTAM	OSX002	
25 Ckt, 23", 310	OSX003	
28 Ckt, 23", 310	OSX021	
DSX-3 CROSS-CONNECT		As required
Blank Panel Chassis	OSX004	
Module (Mid-Size WECO jacks)	OSX006	
Module (Std-Size WECO jacks)	OSX007	
Cross-Connect Blanks	OSX008	
Adapter Pr, 4 RMS, 1.75-1.75 inches	OSH007	
FO (FIBER-OPTIC) ENTRANCE PANEL		
FO Interface Panel, FC	ACX003G2	
WIRE-WRAP BLOCKS		
Wire-wrap block (segmented into four 10 x 5 pins) with a 50-pin Amphenol connector interface (male)	HTB013-1	

TABLE D. 828A Equipment Cables

DESCRIPTION	PART NUMBER	QUANTITY
RIBBON CABLE		As required
Mux-to-Mux	AWX104G1	
Mux-to-ACX025 Fuse and Alarm Panel	AWX104G2	
Mux-to-ACX043 Fuse and Alarm Panel	AWX104G5	
B3ZS CABLE	AWX069G*	
ACX025 FUSE AND ALARM PANEL		
DC POWER CABLES (Wire Harness)		
Fuse and Alarm Panel to MUX 1	AWX127G1	
Fuse and Alarm Panel to MUX 2	AWX127G2	
Fuse and Alarm Panel to MUX 3	AWX127G3	
Fuse and Alarm Panel to MUX 4	AWX127G4	
Fuse and Alarm Panel to MUX 5	AWX127G5	
Fuse and Alarm Panel to MUX 6	AWX127G6	
Fuse and Alarm Panel to MUX 7	AWX127G7	
Fuse and Alarm Panel to MUX 8	AWX127G8	
Fuse and Alarm Panel to MUX 9	AWX127G9	
Fuse and Alarm Panel to MUX 10	AWX127G10	
Fuse and Alarm Panel to MUX 11	AWX127G11	
Fuse and Alarm Panel to MUX 12	AWX127G12	
ACX043 FUSE AND ALARM PANEL CABLES		
Power Cable Harness from Fuse and Alarm Panel to Mux	AWX182G*	
RAC-II: 828A/828AF (J7) to Fuse and Alarm Panel (J4)	AWX181G*	
RAC-II: 828A/828AF (J7) to 50-pin Amphenol connector (female) to interconnect to connectorized wire-wrap block HTB013-1	AWX184G*	
RAC-II: Extension cable from AWX184G* to customer supplied wire-wrap pin block (bare wires)	AWX185G*	

* G number indicates length of cable, which can be ordered in lengths of 6, 12, 18, 24, 30, 36, 48, and 60 feet.

TABLE D. 828A Equipment Cables (Cont.)

DESCRIPTION	PART NUMBER	QUANTITY
TELTRAC CABLES		As Required
Connect ACX025/ACX043 Fuse and Alarm Panels (modular-to-modular connectors)	AWX105G*	
Connect ACX025/ACX043 Fuse and Alarm Panel to 828/M560 system (modular-to-dual row)	AWX125G*	
3-foot patch cable to connect ACX025/ACX043 Fuse and Alarm Panel to TELTRAC cable (modular-to-female Sub D)	AWX126G1	
3-foot patch cable to connect ACX025/ACX043 Fuse and Alarm Panel to TELTRAC cable (modular-to-male Sub D)	AWX126G2	
Connect TELTRAC patch cable to TELTRAC system (male Sub D-to-male Sub D)	AWX071G**	
Connect RAC-II Communication via 828A backplane (J7) to ACX043G1 Fuse and Alarm panel	AWX181G*	

*G number indicates length of cable, which can be ordered in lengths of 6, 12, 18, 24, 30, 36, 48, and 60 feet.

**G number indicates length of cable, which can be ordered in lengths of 5-foot increments up to 75 feet. (Example: AWX071G5 is five feet.)

TABLE D. 828A Equipment Cables (Cont.)

DESCRIPTION	PART NUMBER	QUANTITY
DSX-3 CROSS-CONNECT CABLES		As required
DSX-3 Patch BNC w/MS 1 ft.	OSX011G1	
DSX-3 Patch BNC 1 ft.	OSX012G1	
T1 CABLE		
30 Pair, AWG 22, Solid	OSC001	
OPTICAL PATCH CORDS		
SM, Jumper, FC-FC, Siecor, 8 Ft.	OSJ002G8	
SM, Jumper, FC-FC, Siecor, 15 Ft.	OSJ002G15	
SM, Jumper, FC-FC, Siecor, 30 Ft.	OSJ002G30	
SM, Jumper, FC-FC, Siecor, 45 Ft.	OSJ002G45	
SM, Jumper, FC-FC, Siecor, 60 Ft.	OSJ002G60	
OPTICAL PIGTAILS		
SM, Pigtail, FC, Siecor, 8 Ft.	OSP002G8	
SM, Pigtail, FC, Siecor, 15 Ft.	OSP002G15	
SM, Pigtail, FC, Siecor, 30 Ft.	OSP002G30	
SM, Pigtail, FC, Siecor, 45 Ft.	OSP002G45	
SM, Pigtail, FC, Siecor, 60 Ft.	OSP002G60	

Telephone Equipment Order

TELCO PURCHASE ORDER NO. _____

QTY.	DESCRIPTION OF ITEM	UNIT PRICE	TOTAL PRICE
	CONTINUED ON ADDITIONAL SHEETS ☐YES ☐NO	TOTAL THIS PAGE	

A4-349-AB

Figure 3-1.   Telco Systems Telephone Equipment Order Form