



Job Aid: Connector and Cable Diagrams (Pinout Charts)

The charts in this document provide pinout and lead designation information according to wire color and connector pin numbers for

- [Adapters](#)
- [Cables](#)
- [Circuit packs and auxiliary equipment](#)
- [Individual circuit packs](#)
- [Connectors](#)
- [Telephones](#)

Codes for pinout charts

The following tables define the abbreviations and codes used in the pinout charts.

For color codes, the code on the left is the color of the wire and the code on the right is the color of the stripe on the wire. For example, BK-W is a black wire with a white stripe.

Table 1: Wire and wire stripe color codes.

Code	Color
BK	black
BL	blue
BR	brown
O	orange
R	red
S	slate (grey)
V	violet
W	white
Y	yellow

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Table 2: Lead designations and descriptions for circuit packs and auxiliary equipment. These abbreviations apply to all circuit packs unless otherwise noted.

Lead designation	Description	Lead designation	Description
An^1		PXR n	Port Transmit Ring Port n
B n		PXT n	Port Transmit Tip Port n
C n		R	Ring
CR n		R n	Port receive voice
CT n		RD+/-	
E	Port receive signal	RX	
EXTALMA		S	Sleeve
EXTALMB		SZ n	
FP-NBPSEL		T	Tip
GRD	Ground	T n	
LBACK n		TD+/-	
LI, LI*	Digital Trunk IN	TX	Terminal transmit
LO, LO*	Digital Trunk OUT	TXR n	Terminal Transmit Ring Port n
LOOP n		TXT n	Terminal Transmit Tip Port n
M	Port transmit signal	V1R n	
P- n		V1T n	
P+ n		XFER48	
PX	Port transmit		

1. n represents a number.

Table 3: RJ21 25-pair connector, cross-connect Main Distribution Frame (MDF), and backplane pin numbers by wire color designations

Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin
W-BL	26	1	102
BL-W	01	2	002
W-O	27	3	103
O-W	02	4	003
W-G	28	5	104
G-W	03	6	004
W-BR	29	7	105
BR-W	04	8	005
W-S	30	9	106
S-W	05	10	006
R-BL	31	11	107
BL-R	06	12	007
R-O	32	13	108
O-R	07	14	008
R-G	33	15	109
G-R	08	16	009
R-BR	34	17	110
BR-R	09	18	010
R-S	35	19	111
S-R	10	20	011
BK-BL	36	21	112
BL-BK	11	22	012
BK-O	37	23	113
O-BK	12	24	013

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Table 3: RJ21 25-pair connector, cross-connect Main Distribution Frame (MDF), and backplane pin numbers by wire color designations (continued)

Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin
BK-G	38	25	302
G-BK	13	26	202
BK-BR	39	27	303
BR-BK	14	28	203
BK-S	40	29	304
S-BK	15	30	204
Y-BL	41	31	305
BL-Y	16	32	205
Y-O	42	33	306
O-Y	17	34	206
Y-G	43	35	307
G-Y	18	36	207
Y-BR	44	37	308
BR-Y	19	38	208
Y-S	45	39	309
S-Y	20	40	209
V-BL	46	41	310
BL-V	21	42	210
V-O	47	43	311
O-V	22	44	211
V-G	48	45	312
G-V	23	46	212
V-BR	49	47	313
BR-V	24	48	213

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Table 3: RJ21 25-pair connector, cross-connect Main Distribution Frame (MDF), and backplane pin numbers by wire color designations (continued)

Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin
V-S	50	49	300
S-V	25	50	200
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Table 4: Tip/Ring/Sleeve codes and descriptions

Lead name identifier	Description	Code	Color
T	Tip	(A)	G
R	Ring	(B)	R
S	Sleeve		

Adapters

Table 5: Pinouts for Ethernet adapter (black) for TN799DP C-LAN, TN2302AP IP Media Processor, and TN2501AP VAL circuit packs

To RJ45 jack pin number	From 50-pin plug pin number	Lead designation
1	32	TX+
2	7	TX-
3	44	RX+
4	18	GRD
5	43	GRD
6	19	RX-
7	45	GRD
8	20	GRD

Table 6: Pinouts for Ethernet adapter for TN2602AP IP Media Resource 320 and TN2302AP IP Media Processor circuit pack

To RJ45 jack (port 1) pin number	To RJ45 jack (port 2) pin number	From 50-pin plug pin number	Lead designation
1		43	TX+
2		18	TX-
3		44	RX+
4		17	GRD
5		42	GRD
6		19	RX-
7		45	GRD
8		20	GRD
	1	27	TX+
	2	2	TX-
	3	29	RX+
	4	1	GRD
	5	26	GRD
	6	4	RX-
	7	30	GRD
	8	5	GRD

Table 7: Pinouts for TN2312BP IPSI and TN8412AP SIPI circuit pack adapters

Wire color	From 50-pin plug (terminal number)	To RJ45 jack pin number	To DB9 connector (terminal number)	DB9 cable color	Lead designation
Y-G	43	1	—	—	TX+
G-Y	18	2	—	—	TX-
Y-BR	44	3	—	—	RX+
BR-Y	19	6	—	—	RX-
BK-BR	39 ¹	—	—	—	FP-NBPSEL
BR-BK	14 ¹	—	—	—	GRD
BK-BL	36	—	1	BL-W	XFER48
BL-BK	11	—	2	W-BL	GRD
R-BR	34	—	3	O-W	Minor (~AP2)
V-S	50	—	8	W-O	GRD
BR-R	9	—	6	BR-W	Major (~AP1)
S-V	25	—	7	W-BR	GRD
R-O	32	—	4	G-W	EXTALMA
O-R	7	—	5	W-G	EXTALMB

1. The pins are shorted on a 50-pin plug.

Table 8: Pinouts for TN8400AP Server adapter

From 50 Pin Plug (Terminal No.)	To USB (Terminal No.)	To Ethernet A (Terminal No.)	To Ethernet B (Terminal No.)	To Ethernet C (Terminal No.)	To Ethernet D (Terminal No.)	Lead designation
36	1					VCC
11	4					GRD
48	3					D+

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Table 8: Pinouts for TN8400AP Server adapter (continued)

From 50 Pin Plug (Terminal No.)	To USB (Terminal No.)	To Ethernet A (Terminal No.)	To Ethernet B (Terminal No.)	To Ethernet C (Terminal No.)	To Ethernet D (Terminal No.)	Lead designation
23	2					D- ETH A
46		3				RX+
21		6				RX-
34		1				TX+
9		2				TX-
		4				
		5				
		7				
		8				ETH B
44			3			RX+
19			6			RX-
32			1			TX+
7			2			TX-
			4			
			5			
			7			
			8			ETH C
42				3		RX+
17				6		RX-
30				1		TX+
5				2		TX-
						2 of 3

Table 8: Pinouts for TN8400AP Server adapter (continued)

From 50 Pin Plug (Terminal No.)	To USB (Terminal No.)	To Ethernet A (Terminal No.)	To Ethernet B (Terminal No.)	To Ethernet C (Terminal No.)	To Ethernet D (Terminal No.)	Lead designation
				4		
				5		
				7		
				8		
						ETH D
38					3	RX+
13					6	RX-
26					1	TX+
1					2	TX-
					4	
					5	
					7	
					8	
						3 of 3

Cables

Ethernet cross-connect cable

You can use an Ethernet CAT5 cable to directly connect a laptop to the services port on the S8500 Server or S8700-series Servers.

Table 9: Pinouts for the S8500 or S8700-series Server services port and laptop Ethernet card

Pin to the services Ethernet port on the server	Pin to Ethernet card on the laptop
8	8
7	7
6	2
5	5
4	4
3	1
2	6
1	3

Processor interface cable

Table 10: Pinouts for Processor interface cable

Signal name	Processor (P1) (RJ21 25-pair connector)	AUX (J1)	TERM (J3)	DCE (J2)	Modem (P2)
ACC48A	40	19			
AP1 (alarm in)	2	26			

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Table 10: Pinouts for Processor interface cable (continued)

Signal name	Processor (P1) (RJ21 25-pair connector)	AUX (J1)	TERM (J3)	DCE (J2)	Modem (P2)
AP2 (alarm in)	27	27			
EXTALMA	5	48			
EXTALMB	30	23			
XFER48	38	36			
MOD-CTS	21				5
MOD-DCD	46				8
MOD-DSR	8				6
MOD-DTR	7				20
MOD-GRD	20				1 & 7
MOD-RTS	34				4
MOD-RXD	33				3
MOD-TXD	45				2
TERM-CTS	9		5		
TERM-DTR	47		20		
TERM-GRD	35		1 & 7		
TERM-RXD	10		3		
TERM-TXD	22		2		
CDR-CTS	49			5	
CDR-DCD	24			8	
CDR-DSR	12			6	
CDR-DTR	37			20	
CDR-GRD	23			1 & 7	
CDR-RXD	36		3	3	
					2 of 3

Table 10: Pinouts for Processor interface cable (continued)

Signal name	Processor (P1) (RJ21 25-pair connector)	AUX (J1)	TERM (J3)	DCE (J2)	Modem (P2)
CDR-TXD	48		2	2	
GRD	25, 50	1-7, 11-17, 44-46	1, 7	1, 7	1, 7
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DS1 interface cables

The following two tables indicate the lead designations and wire colors for DS1 interface circuit pack cables. For a list of DS1 interface circuit packs, see [Table 15](#).

Table 11: DS1 interface cable H600-307 lead designations

Wire color	50-pin pin number	Lead designation	Wire color	15-pin pin number	Lead designation
W-BL	02	—	—	—	—
BL-W	03	—	—	—	—
W-G	47	LI (High)	W-G	11	LI (High)
G-W	22	LI	G-W	03	LI
W-BR	48	LO	W-BR	09	LO
BR-W	23	LO (High)	BR	01	LO (High)
W-S	49	LOOP2	W-S	06	LOOP2
S-W	24	LOOP1	S-W	05	LOOP1
All other pins are empty.					

Table 12: DS1 interface cable C6F lead designations

Wire color	Pin number	Lead designation
W-G	47	LI* (High Side)
G	22	LI
W-B	48	LO
B	23	LO* (High Side)
W-S	49	LBACK2
S	24	LBACK1

Circuit packs and auxiliary equipment

The following two tables indicate the leads for circuit packs and auxiliary equipment by wire color and connector pin numbers.

Table 13: Circuit pack and auxiliary equipment leads - table 1 of 2

Wire color	RJ21 25-pair connector pin	ISDN BRI S/T-NT interface (4-wire, 12 ports) TN556D	MET line (4 ports) TN735	Hybrid line (8 ports) TN762B	AUX trunk (4 ports) TN763D	Analog line (24 ports) TN793CP	ISDN-BRI S/T-TE interface (4-wire, 8 ports) TN2185B	DIOD trunk (4 ports) TN2184	ISDN-BRI U interface (2-wire, 12 ports) TN2198	Central Office trunk (3-wire, 4 ports) TN2199
W-BL	26	PXR1	T1	V1T1	T1	T1	TXT1	T1	T1	A1
BL-W	01	PXT1	R1	V1R1	R1	R1	TXR1	R1	R1	B1
W-O	27	TXT1	TXT1	CT1	SZ1	T2	PXT1		T2	
O-W	02	TXR1	TXR1	CR1	SZ11	R2	PXR1		R2	
W-G	28	PXR2	PXT1	P-1	S1	T3	TXT2		T3	
G-W	03	PXT2	PXR1	P+1	S11	R3	TXR2		R3	C1
W-BR	29	TXT2	T2	V1T2	T2	T4	PXT2	T2	T4	A2
BR-W	04	TXR2	R2	V1R2	R2	R4	PXR2	R2	R4	B2
W-S	30	PXR3	TXT2	CT2	SZ2	T5	TXT3		T5	
S-W	05	PXT3	TXR2	CR2	SZ12	R5	TXR3		R5	
R-BL	31	TXT3	PXT2	P-2	S2	T6	PXT3		T6	
BL-R	06	TXR3	PXR2	P+2	S12	R6	PXR3		R6	C2
R-O	32	PXR4	T3	V1T3	T3	T7	TXT4	T3	T7	A3
O-R	07	PXT4	R3	V1R3	R3	R7	TXR4	R3	R7	B3
R-G	33	TXT4	TXT3	CT3	SZ3	T8	PXT4		T8	
G-R	08	TXR4	TXR3	CR3	SZ13	R8	PXR4		R8	
R-BR	34	PXR5	PXT3	P-3	S3	T9	TXT5		T9	
BR-R	09	PXT5	PXR3	P+3	S13	R9	TXR5		R9	C3
R-S	35	TXT5	T4	V1T4	T4	T10	PXT5	T4	T10	A4
S-R	10	TXR5	R4	V1R4	R4	R10	PXR5	R4	R10	B4
BK-BL	36	PXR6	TXT4	CT4	SZ4	T11	TXT6		T11	
BL-BK	11	PXT6	TXR4	CR4	SZ14	R11	TXR6		R11	

Table 13: Circuit pack and auxiliary equipment leads - table 1 of 2 (continued)

Wire color	RJ21 25-pair connector pin	ISDN BRI S/T-NT interface (4-wire, 12 ports) TN556D	MET line (4 ports) TN735	Hybrid line (8 ports) TN762B	AUX trunk (4 ports) TN763D	Analog line (24 ports) TN793CP	ISDN-BRI S/T-TE interface (4-wire, 8 ports) TN2185B	DIOD trunk (4 ports) TN2184	ISDN-BRI U interface (2-wire, 12 ports) TN2198	Central Office trunk (3-wire, 4 ports) TN2199
BK-O	37	TXT6	PXT4	P-4	S4	T12	PXT6		T12	
O-BK	12	TXR6	PXR4	P+4	S14	R12	PXR6		R12	
BK-G	38	PXR7		V1T5		T13	TXT7			
G-BK	13	PXT7		V1R5		R13	TXR7			
BK-BR	39	TXT7		CT5		T14	PXT7			
BR-BK	14	TXR7		CR5		R14	PXR7			
BK-S	40	PXR8		P-5		T15	TXT8			
S-BK	15	PXT8		P+5		R15	TXR8			
Y-BL	41	TXT8		V1T6		T16	PXT8			
BL-Y	16	TXR8		V1R6		R16	PXR8			
Y-O	42	PXR9		CT6		T17				
O-Y	17	PXT9		CR6		R17				
Y-G	43	TXT9		P-6		T18				
G-Y	18	TXR9		P+6		R18				
Y-BR	44	PXR10		V1T7		T19				
BR-Y	19	PXT10		V1R7		R19				
Y-S	45	TXT10		CT7		T20				
S-Y	20	TXR10		CR7		R20				
V-BL	46	PXR11		P-7		T21				
BL-V	21	PXT11		P+7		R21				
V-O	47	TXT11		V1T8		T22				
O-V	22	TXR11		V1R8		R22				
V-G	48	PXR12		CT8		T23				
G-V	23	PXT12		CR8		R23				
V-BR	49	TXT12		P-8		T24				
BR-V	24	TXR12		P+8		R24				

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Table 13: Circuit pack and auxiliary equipment leads - table 1 of 2 (continued)

Wire color	RJ21 25-pair connector pin	ISDN BRI S/T-NT interface (4-wire, 12 ports) TN556D	MET line (4 ports) TN735	Hybrid line (8 ports) TN762B	AUX trunk (4 ports) TN763D	Analog line (24 ports) TN793CP	ISDN-BRI S/T-TE interface (4-wire, 8 ports) TN2185B	DIOD trunk (4 ports) TN2184	ISDN-BRI U interface (2-wire, 12 ports) TN2198	Central Office trunk (3-wire, 4 ports) TN2199
V-S	50	GRD	GRD	GRD	GRD	GRD	GRD	GRD	GRD	GRD
S-V	25	GRD	GRD	GRD	GRD	GRD	GRD	GRD	GRD	GRD

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Table 14: Circuit pack and auxiliary equipment leads - table 2 of 2

Wire Color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Analog line or trunk (8 ports)	Central Office Trunk (8 ports)	Digital/analog line (2-wire, 16 ports)	Data/digital line (4-wire, 8 ports)	DID/DIOD trunk	DS1 interface	Tie trunk (4 wire, 4 ports)
W-BL	26	1	T1	T1	T1		T1		T1
BL-W	01	2	R1	R1	R1		R1		R1
W-O	27	3			T2	TXT1			T11
O-W	02	4			R2	TXR1			R11
W-G	28	5			T3	PXT1			E1
G-W	03	6			R3	PXR1			M1
W-BR	29	7	T2	T2	T4		T2		T2
BR-W	04	8	R2	R2	R4		R2		R2
W-S	30	9				TXT2			T12
S-W	05	10				TXR2			R12
R-BL	31	11				PXT2			E2
BL-R	06	12				PXR2			M2
R-O	32	13	T3	T3			T3		T3
O-R	07	14	R3	R3			R3		R3
R-G	33	15				TXT3			T13
G-R	08	16				TXR3			R13
R-BR	34	17			T5	PXT3			E3
BR-R	09	18			R5	PXR3			M3
R-S	35	19	T4	T4	T6		T4		T4

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Table 14: Circuit pack and auxiliary equipment leads - table 2 of 2 (continued)

Wire Color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Analog line or trunk (8 ports)	Central Office Trunk (8 ports)	Digital/analog line (2-wire, 16 ports)	Data/digital line (4-wire, 8 ports)	DID/DIOD trunk	DS1 interface	Tie trunk (4 wire, 4 ports)
S-R	10	20	R4	R4	R6		R4		R4
BK-BL	36	21			T7	TXT4			T14
BL-BK	11	22			R7	TXR4			R14
BK-O	37	23			T8	PXT4			E4
O-BK	12	24			R8	PXR4			M4
BK-G	38	25	T5	T5	T9				
G-BK	13	26	R5	R5	R9				
BK-BR	39	27			T10	TXT5			
BR-BK	14	28			R10	TXR5			
BK-S	40	29			T11	PXT5			
S-BK	15	30			R11	PXR5			
Y-BL	41	31	T6	T6	T12				
BL-Y	16	32	R6	R6	R12				
Y-O	42	33				TXT6			
O-Y	17	34				TXR6			
Y-G	43	35				PXT6			
G-Y	18	36				PXR6			
Y-BR	44	37	T7	T7					
BR-Y	19	38	R7	R7					
Y-S	45	39				TXT7			
S-Y	20	40				TXR7			
V-BL	46	41			T13	PXT7			
BL-V	21	42			R13	PXR7			
V-O	47	43	T8	T8	T14			LI*	
O-V	22	44	R8	R8	R14			LI	
V-G	48	45			T15	TXT8		LO	
G-V	23	46			R15	TXR8		LO*	
V-BR	49	47			T16	PXT8		LBACK2	
BR-V	24	48			R16	PXR8		LBACK1	

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Table 14: Circuit pack and auxiliary equipment leads - table 2 of 2 (continued)

Wire Color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Analog line or trunk (8 ports)	Central Office Trunk (8 ports)	Digital/analog line (2-wire, 16 ports)	Data/digital line (4-wire, 8 ports)	DID/DIOD trunk	DS1 interface	Tie trunk (4 wire, 4 ports)
V-S	50	49	GRD	GRD	GRD	GRD	GRD	GRD	GRD
S-V	25	50	GRD	GRD	GRD	GRD	GRD	GRD	GRD

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Table 15: Circuit pack name cross-reference for [Table 14](#)

Analog line or trunk (8 ports)	Central office trunk (8 ports)	Data/digital line (4-wire, 8 ports)	DCP Digital line (2 wire, 8 ports)	DID/DIOD trunk	Digital/analog line (2-wire, 16 ports)	DS1 interface	Tie trunk (4 wire, 4 ports)
TN769	TN429D	TN726B	TN2214CP	TN429D	TN479	TN464HP	TN760E
TN797	TN438B	TN754C	TN2224CP	TN436B	TN746B	TN767E	TN2140B
	TN465C			TN459B	TN791	TN2207	TN2209
	TN747B			TN753B	TN2181	TN2313AP	
	TN2138			TN2139	TN2183	TN2464CP	
	TN2147C			TN2146	TN2215		
				TN2308			

Individual circuit packs

TN799 C-LAN

Table 16: Pinout for TN799 C-LAN

Wire color	Backplane pin	Peripheral connector pin	Lead designation
W-O	103	27	TD+
O-W	003	2	TD-
W-G	104	28	RD+
G-W	004	3	RD-

TN793CP Analog line (24 ports)

Table 17: Pinout for TN793CP analog line with Caller ID for multiple countries (24 ports)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal
1	W-BL	26	1	102	T1
	BL-W	01	2	002	R1
2	W-O	27	3	103	T2
	O-W	02	4	003	R2
3	W-G	28	5	104	T3
	G-W	03	6	004	R3
4	W-BR	29	7	105	T4
	BR-W	04	8	005	R4
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Table 17: Pinout for TN793CP analog line with Caller ID for multiple countries (24 ports) (continued)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal pin
5	W-SL	30	9	106	T5
	SL-W	05	10	006	R5
6	R-BL	31	11	107	T6
	BL-R	06	12	007	R6
7	R-O	32	13	108	T7
	O-R	07	14	008	R7
8	R-G	33	15	109	T8
	G-R	08	16	009	R8
9	R-BR	34	17	110	T9
	BR-R	09	18	010	R9
10	R-SL	35	19	111	T10
	SL-R	10	20	011	R10
11	BK-BL	36	21	112	T11
	BL-BK	11	22	012	R11
12	BK-O	37	23	113	T12
	O-BK	12	24	013	R12
13	BK-G	38	25	302	T13
	G-BK	13	26	202	R13
14	BK-BR	39	27	303	T14
	BR-BK	14	28	203	R14
15	BK-SL	40	29	304	T15
	SL-BK	15	30	204	R15
16	Y-BL	41	31	305	T16
	BL-Y	16	32	205	R16
					2 of 3

Table 17: Pinout for TN793CP analog line with Caller ID for multiple countries (24 ports) (continued)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal
17	Y-O	42	33	306	T17
	O-Y	17	34	206	R17
18	Y-G	43	35	307	T18
	G-Y	18	36	207	R18
19	Y-BR	44	37	308	T19
	BR-Y	19	38	208	R19
20	Y-SL	45	39	309	T20
	SL-Y	20	40	209	R20
21	V-BL	46	41	310	T21
	BL-V	21	42	210	R21
22	V-O	47	43	311	T22
	O-V	22	44	211	R22
23	V-G	48	45	312	T23
	G-V	23	46	212	R23
24	V-BR	49	47	313	T24
	BR-V	24	48	213	R24
25	V/SL	50	49	314	
	SL/V	25	50	214	
					3 of 3

TN2158B ISDN-BRI S/T-TE interface (4-wire, 8 ports)

Table 18: Pinout for TN2158B ISDN-BRI S/T-TE interface (4-wire, 8 ports)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal
1	W-BL	26	1	102	TXT1
	BL-W	01	2	002	TXR1
	W-O	27	3	103	PXT1
	O-W	02	4	003	PXR1
2	W-G	28	5	104	TXT2
	G-W	03	6	004	TXR2
	W-BR	29	7	105	PXT2
	BR-W	04	8	005	PXR2
3	W-SL	30	9	106	TXT3
	SL-W	05	10	006	TXR3
	R-BL	31	11	107	PXT3
	BL-R	06	12	007	PXR3
4	R-O	32	13	108	TXT4
	O-R	07	14	008	TXR4
	R-G	33	15	109	PXT4
	G-R	08	16	009	PXR4
5	R-BR	34	17	110	TXT5
	BR-R	09	18	010	TXR5
	R-SL	35	19	111	PXT5
	SL-R	10	20	011	PXR5
6	BK-BL	36	21	112	TXT6
	BL-BK	11	22	012	TXR6

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Table 18: Pinout for TN2185B ISDN-BRI S/T-TE interface (4-wire, 8 ports) (continued)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal
	BK-O	37	23	113	PXT6
	O-BK	12	24	013	PXR6
7	BK-G	38	25	302	TXT7
	G-BK	13	26	202	TXR7
	BK-BR	39	27	303	PXT7
	BR-BK	14	28	203	PXR7
8	BK-SL	40	29	304	TXT8
	SL-BK	15	30	204	TXR8
	Y-BL	41	31	305	PXT8
	BL-Y	16	32	205	PXR8
					2 of 2

TN2198 ISDN-BRI U interface (2-wire, 12 ports)

Table 19: Pinout for TN2198 ISDN-BRI U interface (2-wire, 12 ports)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal
1	W-BL	26	1	102	T1
	BL-W	01	2	002	R1
2	W-O	27	3	103	T2
	O-W	02	4	003	R2
3	W-G	28	5	104	T3
	G-W	03	6	004	R3
					1 of 2

Table 19: Pinout for TN2198 ISDN-BRI U interface (2-wire, 12 ports) (continued)

Port	Wire color	RJ21 25-pair connector pin	Cross-connect (MDF) pin	Backplane pin	Signal
4	W-BR	29	7	105	T4
	BR-W	04	8	005	R4
5	W-SL	30	9	106	T5
	SL-W	05	10	006	R5
6	R-BL	31	11	107	T6
	BL-R	06	12	007	R6
7	R-O	32	13	108	T7
	O-R	07	14	008	R7
8	R-G	33	15	109	T8
	G-R	08	16	009	R8
9	R-BR	34	17	110	T9
	BR-R	09	18	010	R9
10	R-SL	35	19	111	T10
	SL-R	10	20	011	R10
11	BK-BL	36	21	112	T11
	BL-BK	11	22	012	R11
12	BK-O	37	23	113	T12
	O-BK	12	24	013	R12

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TN760 analog tie trunk connections between switches

Table 20: Co-located tie trunk connections (E&M) between switches

Switch A TN760	Switch B TN760
T	T1
R	R1
T1	T
R1	R
E	M
M	E

Table 21: Co-located tie trunk connections (simplex) between switches

Switch A TN760	Switch B TN760
T	T1
R	R1
T1	T
R1	R

Connectors

RJ21 AUX connector

Table 22: Auxiliary lead appearances at the AUX connector (RJ21 25-pair connector) for MCC1 and SCC1 media gateways

Wire color	RJ21 25-pair connector pin	Output	Power
W-BL	26	Major ¹	—
BL-W	1	Major GRD	—
W-O	27	Minor ²	—
O-W	2	Minor GRD	—
W-G	28	—	—
G-W	3	GRD	—
W-BR	29	—	—
BR-W	4	GRD	—
W-S	30	—	—
S-W	5	GRD	—
R-BL	31	—	—
BL-R	6	GRD	—
R-O	32	—	—
O-R	7	GRD	—
R-G	33	Not connected	—
G-R	8	Not connected	—
R-BR	34	Not connected	—
BR-R	9	Not connected	—
R-S	35	Not connected	—

Table 22: Auxiliary lead appearances at the AUX connector (RJ21 25-pair connector) for MCC1 and SCC1 media gateways (continued)

Wire color	RJ21 25-pair connector pin	Output	Power
S-R	10	Not connected	—
BK-BL	36	-48	Emergency transfer relay power
BL-BK	11	GRD	Emergency transfer relay power
BK-O	37	-48	Emergency transfer relay power
O-BK	12	GRD	Emergency transfer relay power
BK-G	38	-48	Emergency transfer relay power
G-BK	13	GRD	Emergency transfer relay power
BK-BR	39	-48	Emergency transfer relay power
BR-BK	14	GRD	Emergency transfer relay power
BK-S	40	-48	Emergency transfer relay power
S-BK	15	GRD	Emergency transfer relay power
Y-BL	41	-48	Emergency transfer relay power
BL-Y	16	GRD	Emergency transfer relay power
Y-O	42	-48	Emergency transfer relay power
O-Y	17	GRD	Emergency transfer relay power
Y-G	43	Not Connected	—
G-Y	18	Not Connected	—

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Table 22: Auxiliary lead appearances at the AUX connector (RJ21 25-pair connector) for MCC1 and SCC1 media gateways (continued)

Wire color	RJ21 25-pair connector pin	Output	Power
Y-BR	44	GRD	AUX power for attendant consoles
BR-Y	19	-48	AUX power for attendant consoles
Y-S	45	GRD	AUX power for attendant consoles
S-Y	20	-48	AUX power for attendant consoles
V-BL	46	GRD	AUX power for attendant consoles
BL-V	21	-48	AUX power for attendant consoles
V-O	47	Not connected	—
O-V	22	Not connected	—
V-G	48	Ext alarm A ³	—
G-V	23	Ext alarm return	—
V-BR	49	Not connected	—
BR-V	24	Not connected	—
V-S	50	INADS tip	—
S-V	25	INADS ring	—

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1. External major alarm input pair from an external isolated contact closure (60 VDC max, 5 mA max)
2. External minor alarm input pair from an external isolated contact closure (60 VDC max, 5 mA max)
3. Output alarm from the Media Gateway, via a contact closure, to the equipment room alarm light or bell

Power distribution unit alarm connector

Table 23: Global power distribution unit (MCC1–J58890CH) external alarm (RJ21) connector

RJ21 25-pair connector pin	Designation	Definition
26	Not used	—
1	Not used	—
27	Not used	—
2	Not used	—
28	Not used	—
3	Not used	—
29	Not used	—
4	Not used	—
30	Not used	—
5	Not used	—
31	Not used	—
32	Not used	—
7	Not used	—
33	RFA2+	Rectifier failure (positive)
8	RFA2-	Rectifier failure return (negative)
34	ACF2+	AC failure (positive)
9	ACF2-	AC failure return (negative)
35	BIF2+	Battery interface unit failure (positive)
10	BIF2-	Battery interface unit failure return (negative)
36	BOD2+	Battery on discharge (positive)
11	BOD2-	Battery on discharge return (negative)

1 of 3

Table 23: Global power distribution unit (MCC1–J58890CH) external alarm (RJ21) connector (continued)

RJ21 25-pair connector pin	Designation	Definition
37	Not used	—
12	RXD	Receive data—not used
38	TXD	Transmit data—not used
13	DTR	Data terminal ready—not used
39	RS-232 GRD	RS-232 ground—not used
14	DSR	Data set ready—not used
40	RTS	Request to send—not used
15	Not used	—
41	Not used	—
16	Not used	—
42	Not used	—
17	Not used	—
43	Not used	—
18	Not used	—
44	Not used	—
19	Not used	—
45	Not used	—
20	Not used	—
46	Not used	—
21	Not used	—
47	Not used	—
22	Not used	—
48	Not used	—

Table 23: Global power distribution unit (MCC1–J58890CH) external alarm (RJ21) connector (continued)

RJ21 25-pair connector pin	Designation	Definition
23	Not used	—
49	Not used	—
24	Not used	—
50	Not used	—
25	Not used	—
3 of 3		

Telephones

Table 24: Telephone lead designations

Pin on modular plug	4-wire: 8400-series 606A1	2-wire: 302D, 8400-series, 603E	8510T BRI (with adjunct speaker phone)	Analog station and modem	NT1 network interface
1	TXT	—	—	—	—
2	TXR	—	—	T	—
3	PXT	—	TXT	R	—
4	—	T	PXR	—	T
5	—	R	PXT	No connection 4-pin modular jack	R
6	PXR	—	TXR	No connection 4-pin modular jack	—
7	-48VDC	(-48VDC)	(-48VDC)	No connection 4-pin modular jack	-48VDC
1 of 2					

Table 24: Telephone lead designations (continued)

Pin on modular plug	4-wire: 8400-series 606A1	2-wire: 302D, 8400-series, 603E	8510T BRI (with adjunct speaker phone)	Analog station and modem	NT1 network interface
8	GRD	GRD	GRD		GRD
Circuit pack	TN754C DCP digital line (4-wire, 8 ports)	TN2181 DCP digital line (2-wire, 16 ports) TN2224CP DCP digital line (2-wire, 24 ports)	TN556D ISDN-BRI 4-wire S/T-NT interface (12 ports)	TN2183 analog line for multiple countries (16 ports)	TN2198 ISDN-BRI U interface (2-wire, 12 ports)
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