



## Job Aid:

# Connector and Cable Diagrams (Pinout Charts)

The pinout charts in this document provide wire color and connector pin numbers for:

- [Circuit pack codes and descriptions for all circuit packs \(unless otherwise noted\)](#)
- [Tip/Ring/Sleeve codes and descriptions](#)
- [Ethernet CAT5 cross-connect cable](#)
- [Circuit pack and auxiliary equipment leads](#)
- [RJ21 circuit pack name cross-reference for Table 5](#)
- [Circuit pack and auxiliary equipment leads](#)
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- [Port circuit pack and telephone pin designations](#)
- [Auxiliary lead appearances at the AUX connector \(RJ21\) for MCC1 and SCC1 media gateways](#)
- [Global power distribution unit \(MCC1–J58890CH\) external alarm \(RJ21\) connector](#)
- [TN799 C-LAN](#)
- [Ethernet adapter \(black\) for TN799DP C-LAN, TN2302AP IP Media Processor, and TN2501AP VAL](#)
- [TN2312AP IP server interface adapter](#)
- [TN2312BP IP server interface adapter \(grey–700263502\)](#)

## Pinout chart tables

**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       |

**Note:**

When the color code has two values, 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 2: Circuit pack codes and descriptions for all circuit packs (unless otherwise noted)**

| Lead name identifier | Description         |
|----------------------|---------------------|
| T,R                  | PBX transmit voice  |
| T1,R1                | PBX receive voice   |
| M                    | PBX transmit signal |
| E                    | PBX receive signal  |
| PX                   | PBX transmit        |
| TX                   | Terminal transmit   |
| LI, LI*              | Digital Trunk IN    |
| LO, LO*              | Digital Trunk OUT   |

**Table 3: Tip/Ring/Sleeve codes and descriptions**

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

An Ethernet CAT5 cable that is used to directly connect a laptop to the services port on the Avaya S8500 or S8700 series media servers must have the following pinouts.

**Table 4: Ethernet CAT5 cross-connect cable**

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

**Table 5: Circuit pack and auxiliary equipment leads**

| Wire color | RJ21 25-pair connector pin | ISDN-BRI 4-wire S interface (8 ports) TN2185B | ISDN-BRI 2-wire U interface (12 ports) TN2198 | Analog line and CO trunk 2-wire (8) | Digital/ analog line 2-wire (16) | Data/ digital line 4-wire (8) | Digital/ analog line 2-wire (24) | Hybrid line (8 ports) TN762B | MET line (4 ports) TN735 | AUX trunk (4) TN763D |
|------------|----------------------------|---|---|-------------------------------------|----------------------------------|-------------------------------|----------------------------------|------------------------------|--------------------------|----------------------|
| W-BL       | 26                         | TXT.1   | T.1   | T1                                  | T1                               |                               | T1                               | V1T1                         | T1                       | T1                   |
| BL-W       | 01                         | TXR.1   | R.1   | R1                                  | R1                               |                               | R1                               | V1R1                         | R1                       | R1                   |
| W-O        | 27                         | PXT.1   | T.2   |                                     | T2                               | TXT1                          | T2                               | CT1                          | TXT1                     | SZ1                  |
| O-W        | 02                         | PXR.1   | R.2   |                                     | R2                               | TXR1                          | R2                               | CR1                          | TXR1                     | SZ11                 |
| W-G        | 28                         | TXT.2   | T.3   |                                     | T3                               | PXT1                          | T3                               | P-1                          | PXT1                     | S1                   |

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## Job Aid: Connector and Cable Diagrams (Pinout Charts)

**Table 5: Circuit pack and auxiliary equipment leads (continued)**

| Wire color | RJ21 25-pair connector pin | ISDN-BRI 4-wire S interface (8 ports) TN2185B | ISDN-BRI 2-wire U interface (12 ports) TN2198 | Analog line and CO trunk 2-wire (8) | Digital/ analog line 2-wire (16) | Data/ digital line 4-wire (8) | Digital/ analog line 2-wire (24) | Hybrid line (8 ports) TN762B | MET line (4 ports) TN735 | AUX trunk (4) TN763D |
|------------|----------------------------|---|---|-------------------------------------|----------------------------------|-------------------------------|----------------------------------|------------------------------|--------------------------|----------------------|
| G-W        | 03                         | TXR.2   | R.3   |                                     | R3                               | PXR1                          | R3                               | P+1                          | PXR1                     | S11                  |
| W-BR       | 29                         | PXT.2   | T.4   | T2                                  | T4                               |                               | T4                               | V1T2                         | T2                       | T2                   |
| BR-W       | 04                         | PXR.2   | R.4   | R2                                  | R4                               |                               | R4                               | V1R2                         | R2                       | R2                   |
| W-S        | 30                         | TXT.3   | T.5   |                                     |                                  | TXT2                          | T5                               | CT2                          | TXT2                     | SZ2                  |
| S-W        | 05                         | TXR.3   | R.5   |                                     |                                  | TXR2                          | R5                               | CR2                          | TXR2                     | SZ12                 |
| R-BL       | 31                         | PXT.3   | T.6   |                                     |                                  | PXT2                          | T6                               | P-2                          | PXT2                     | S2                   |
| BL-R       | 06                         | PXR.3   | R.6   |                                     |                                  | PXR2                          | R6                               | P+2                          | PXR2                     | S12                  |
| R-O        | 32                         | TXT.4   | T.7   | T3                                  |                                  |                               | T7                               | V1T3                         | T3                       | T3                   |
| O-R        | 07                         | TXR.4   | R.7   | R3                                  |                                  |                               | R7                               | V1R3                         | R3                       | R3                   |
| R-G        | 33                         | PXT.4   | T.8   |                                     |                                  | TXT3                          | T8                               | CT3                          | TXT3                     | SZ3                  |
| G-R        | 08                         | PXR.4   | R.8   |                                     |                                  | TXR3                          | R8                               | CR3                          | TXR3                     | SZ13                 |
| R-BR       | 34                         | TXT.5   | T.9   |                                     | T5                               | PXT3                          | T9                               | P-3                          | PXT3                     | S3                   |
| BR-R       | 09                         | TXR.5   | R.9   |                                     | R5                               | PXR3                          | R9                               | P+3                          | PXR3                     | S13                  |
| R-S        | 35                         | PXT.5   | T.10  | T4                                  | T6                               |                               | T10                              | V1T4                         | T4                       | T4                   |
| S-R        | 10                         | PXR.5   | R.10  | R4                                  | R6                               |                               | R10                              | V1R4                         | R4                       | R4                   |
| BK-BL      | 36                         | TXT.6   | T.11  |                                     | T7                               | TXT4                          | T11                              | CT4                          | TXT4                     | SZ4                  |
| BL-BK      | 11                         | TXR.6   | R.11  |                                     | R7                               | TXR4                          | R11                              | CR4                          | TXR4                     | SZ14                 |
| BK-O       | 37                         | PXT.6   | T.12  |                                     | T8                               | PXT4                          | T12                              | P-4                          | PXT4                     | S4                   |
| O-BK       | 12                         | PXR.6   | R.12  |                                     | R8                               | PXR4                          | R12                              | P+4                          | PXR4                     | S14                  |
| BK-G       | 38                         | TXT.7   |   | T5                                  | T9                               |                               | T13                              | V1T5                         |                          |                      |
| G-BK       | 13                         | TXR.7   |   | R5                                  | R9                               |                               | R13                              | V1R5                         |                          |                      |
| BK-BR      | 39                         | PXT.7   |   |                                     | T10                              | TXT5                          | T14                              | CT5                          |                          |                      |
| BR-BK      | 14                         | PXR.7   |   |                                     | R10                              | TXR5                          | R14                              | CR5                          |                          |                      |
| BK-S       | 40                         | TXT.8   |   |                                     | T11                              | PXT5                          | T15                              | P-5                          |                          |                      |
| S-BK       | 15                         | TXR.8   |   |                                     | R11                              | PXR5                          | R15                              | P+5                          |                          |                      |
| Y-BL       | 41                         | PXT.8   |   | T6                                  | T12                              |                               | T16                              | V1T6                         |                          |                      |
| BL-Y       | 16                         | PXR.8   |   | R6                                  | R12                              |                               | R16                              | V1R6                         |                          |                      |
| Y-O        | 42                         |   |   |                                     |                                  | TXT6                          | T17                              | CT6                          |                          |                      |

Table 5: Circuit pack and auxiliary equipment leads (continued)

| Wire color | RJ21 25-pair connector pin | ISDN-BRI 4-wire S interface (8 ports) TN2185B | ISDN-BRI 2-wire U interface (12 ports) TN2198 | Analog line and CO trunk 2-wire (8) | Digital/ analog line 2-wire (16) | Data/ digital line 4-wire (8) | Digital/ analog line 2-wire (24) | Hybrid line (8 ports) TN762B | MET line (4 ports) TN735 | AUX trunk (4) TN763D |
|------------|----------------------------|---|---|-------------------------------------|----------------------------------|-------------------------------|----------------------------------|------------------------------|--------------------------|----------------------|
| O-Y        | 17                         |   |   |                                     |                                  | TXR6                          | R17                              | CR6                          |                          |                      |
| Y-G        | 43                         |   |   |                                     |                                  | PXT6                          | T18                              | P-6                          |                          |                      |
| G-Y        | 18                         |   |   |                                     |                                  | PXR6                          | R18                              | P+6                          |                          |                      |
| Y-BR       | 44                         |   |   | T7                                  |                                  |                               | T19                              | V1T7                         |                          |                      |
| BR-Y       | 19                         |   |   | R7                                  |                                  |                               | R19                              | V1R7                         |                          |                      |
| Y-S        | 45                         |   |   |                                     |                                  | TXT7                          | T20                              | CT7                          |                          |                      |
| S-Y        | 20                         |   |   |                                     |                                  | TXR7                          | R20                              | CR7                          |                          |                      |
| V-BL       | 46                         |   |   |                                     | T13                              | PXT7                          | T21                              | P-7                          |                          |                      |
| BL-V       | 21                         |   |   |                                     | R13                              | PXR7                          | R21                              | P+7                          |                          |                      |
| V-O        | 47                         |   |   | T8                                  | T14                              |                               | T22                              | V1T8                         |                          |                      |
| O-V        | 22                         |   |   | R8                                  | R14                              |                               | R22                              | V1R8                         |                          |                      |
| V-G        | 48                         |   |   |                                     | T15                              | TXT8                          | T23                              | CT8                          |                          |                      |
| G-V        | 23                         |   |   |                                     | R15                              | TXR8                          | R23                              | CR8                          |                          |                      |
| V-BR       | 49                         |   |   |                                     | T16                              | PXT8                          | T24                              | P-8                          |                          |                      |
| BR-V       | 24                         |   |   |                                     | R16                              | PXR8                          | R24                              | P+8                          |                          |                      |
| 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 6: RJ21 circuit pack name cross-reference for [Table 5](#)**

| Analog line, CO, and DID trunk 2-wire (8 ports) | Digital/analog line 2-wire (16 ports) | Data/ digital line 4-wire (8 ports) | Digital/ analog line 2-wire (24 ports) |
|---|---------------------------------------|-------------------------------------|--|
| TN429D  | TN479                                 | TN726B                              | TN793CP                                |
| TN436B  | TN746B                                | TN754C                              | TN2214CP                               |
| TN438B  | TN791                                 |                                     | TN2224CP                               |
| TN459B  | TN2181                                |                                     |  |
| TN465C  | TN2183                                |                                     |  |
| TN747B  | TN2215                                |                                     |  |
| TN753B  |                                       |                                     |  |
| TN769   |                                       |                                     |  |
| TN797   |                                       |                                     |  |
| TN2138  |                                       |                                     |  |
| TN2139  |                                       |                                     |  |
| TN2146  |                                       |                                     |  |
| TN2147C   |                                       |                                     |  |
| TN2308  |                                       |                                     |  |

**Table 7: Circuit pack and auxiliary equipment leads**

| Wire color | RJ21 25-pair connector pin | Cross-connect MDF pin | CO trunk 3-wire (4 ports) TN2199 | Tie trunk (4 ports) | DS1 trunk | ISDN BRI line 4-wire (12 ports) TN556D | 4 port DIOD TN2184 |
|------------|----------------------------|-----------------------|----------------------------------|---------------------|-----------|--|--------------------|
| W-BL       | 26                         | 1                     | A1                               | T1                  |           | PXR1                                   | T1                 |
| BL-W       | 01                         | 2                     | B1                               | R1                  |           | PXT1                                   | R1                 |
| W-O        | 27                         | 3                     |                                  | T11                 |           | TXT1                                   |                    |
| O-W        | 02                         | 4                     |                                  | R11                 |           | TXR1                                   |                    |

Table 7: Circuit pack and auxiliary equipment leads (continued)

| Wire color | RJ21 25-pair connector pin | Cross-connect MDF pin | CO trunk 3-wire (4 ports) TN2199 | Tie trunk (4 ports) | DS1 trunk | ISDN BRI line 4-wire (12 ports) TN556D | 4 port DIOD TN2184 |
|------------|----------------------------|-----------------------|----------------------------------|---------------------|-----------|--|--------------------|
| W-G        | 28                         | 5                     |                                  | E1                  |           | PXR2                                   |                    |
| G-W        | 03                         | 6                     | C1                               | M1                  |           | PXT2                                   |                    |
| W-BR       | 29                         | 7                     | A2                               | T2                  |           | TXT2                                   | T2                 |
| BR-W       | 04                         | 8                     | B2                               | R2                  |           | TXR2                                   | R2                 |
| W-S        | 30                         | 9                     |                                  | T12                 |           | PXR3                                   |                    |
| S-W        | 05                         | 10                    |                                  | R12                 |           | PXT3                                   |                    |
| R-BL       | 31                         | 11                    |                                  | E2                  |           | TXT3                                   |                    |
| BL-R       | 06                         | 12                    | C2                               | M2                  |           | TXR3                                   |                    |
| R-O        | 32                         | 13                    | A3                               | T3                  |           | PXR4                                   | T3                 |
| O-R        | 07                         | 14                    | B3                               | R3                  |           | PXT4                                   | R3                 |
| R-G        | 33                         | 15                    |                                  | T13                 |           | TXT4                                   |                    |
| G-R        | 08                         | 16                    |                                  | R13                 |           | TXR4                                   |                    |
| R-BR       | 34                         | 17                    |                                  | E3                  |           | PXR5                                   |                    |
| BR-R       | 09                         | 18                    | C3                               | M3                  |           | PXT5                                   |                    |
| R-S        | 35                         | 19                    | A4                               | T4                  |           | TXT5                                   | T4                 |
| S-R        | 10                         | 20                    | B4                               | R4                  |           | TXR5                                   | R4                 |
| BK-BL      | 36                         | 21                    |                                  | T14                 |           | PXR6                                   |                    |
| BL-BK      | 11                         | 22                    |                                  | R14                 |           | PXT6                                   |                    |
| BK-O       | 37                         | 23                    |                                  | E4                  |           | TXT6                                   |                    |
| O-BK       | 12                         | 24                    |                                  | M4                  |           | TXR6                                   |                    |
| BK-G       | 38                         | 25                    |                                  |                     |           | PXR7                                   |                    |
| G-BK       | 13                         | 26                    |                                  |                     |           | PXT7                                   |                    |
| BK-BR      | 39                         | 27                    |                                  |                     |           | TXT7                                   |                    |
| BR-BK      | 14                         | 28                    |                                  |                     |           | TXR7                                   |                    |

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Table 7: Circuit pack and auxiliary equipment leads (continued)

| Wire color | RJ21 25-pair connector pin | Cross-connect MDF pin | CO trunk 3-wire (4 ports) TN2199 | Tie trunk (4 ports) | DS1 trunk | ISDN BRI line 4-wire (12 ports) TN556D | 4 port DIOD TN2184 |
|------------|----------------------------|-----------------------|----------------------------------|---------------------|-----------|--|--------------------|
| BK-S       | 40                         | 29                    |                                  |                     |           | PXR8                                   |                    |
| S-BK       | 15                         | 30                    |                                  |                     |           | PXT8                                   |                    |
| Y-BL       | 41                         | 31                    |                                  |                     |           | TXT8                                   |                    |
| BL-Y       | 16                         | 32                    |                                  |                     |           | TXR8                                   |                    |
| Y-O        | 42                         | 33                    |                                  |                     |           | PXR9                                   |                    |
| O-Y        | 17                         | 34                    |                                  |                     |           | PXT9                                   |                    |
| Y-G        | 43                         | 35                    |                                  |                     |           | TXT9                                   |                    |
| G-Y        | 18                         | 36                    |                                  |                     |           | TXR9                                   |                    |
| Y-BR       | 44                         | 37                    |                                  |                     |           | PXR10                                  |                    |
| BR-Y       | 19                         | 38                    |                                  |                     |           | PXT10                                  |                    |
| Y-S        | 45                         | 39                    |                                  |                     |           | TXT10                                  |                    |
| S-Y        | 20                         | 40                    |                                  |                     |           | TXR10                                  |                    |
| V-BL       | 46                         | 41                    |                                  |                     |           | PXR11                                  |                    |
| BL-V       | 21                         | 42                    |                                  |                     |           | PXT11                                  |                    |
| V-O        | 47                         | 43                    |                                  |                     | LI*       | TXT11                                  |                    |
| O-V        | 22                         | 44                    |                                  |                     | LI        | TXR11                                  |                    |
| V-G        | 48                         | 45                    |                                  |                     | LO        | PXR12                                  |                    |
| G-V        | 23                         | 46                    |                                  |                     | LO*       | PXT12                                  |                    |
| V-BR       | 49                         | 47                    |                                  |                     | LBACK2    | TXT12                                  |                    |
| BR-V       | 24                         | 48                    |                                  |                     | LBACK1    | TXR12                                  |                    |
| V-S        | 50                         | 49                    | GRD                              | GRD                 | GRD       | GRD                                    | GRD                |
| S-V        | 25                         | 50                    | GRD                              | GRD                 | GRD       | GRD                                    | GRD                |

**Table 8: MDF circuit pack name cross-reference for [Table 7](#)**

| Tie trunk (4) | DS1 trunk | ISDN PRI line |
|---------------|-----------|---------------|
| TN458         | TN464     | TN2242        |
| TN760         | TN722     |               |
| TN2140        | TN767     |               |
| TN2209        | TN2207    |               |
|               | TN2313    |               |
|               | TN2464    |               |

**Table 9: Circuit pack lead pin numbers and color designations**

| Wire color | RJ21 25-pair connector pin | Cross-connect pin (MDF) | 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           |
|            |                            |                         | <i>1 of 3</i> |

**Table 9: Circuit pack lead pin numbers and color designations (continued)**

| Wire color | RJ21 25-pair connector pin | Cross-connect pin (MDF) | Backplane pin |
|------------|----------------------------|-------------------------|---------------|
| 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           |
| 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           |

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**Table 9: Circuit pack lead pin numbers and color designations (continued)**

| Wire color | RJ21 25-pair connector pin | Cross-connect pin (MDF) | Backplane pin |
|------------|----------------------------|-------------------------|---------------|
| 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           |
| V-S        | 50                         | 49                      | 300           |
| S-V        | 25                         | 50                      | 200           |
|            |                            |                         | <b>3 of 3</b> |

**Table 10: DS1 interface cable H600-307**

| Wire color                | 50-pin Pin | Lead Designation | Color | 15-pin Pin | 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 11: DS1 interface cable C6F**

| Wire color | Lead Designation | Pin Number |
|------------|------------------|------------|
| W-G        | LI* (High Side)  | 47         |
| G          | LI               | 22         |
| W-BR       | LO               | 48         |
| BR         | LO* (High Side)  | 23         |
| W-S        | LBACK2           | 49         |
| S          | LBACK1           | 24         |

**Table 12: Port circuit pack and telephone pin 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                    |
|--|-------------------------------|--|--|-------------------------------------|------------------------|
| 1  | TXT                           | —  | —                                      | —                                   | —                      |
| 2  | TXR                           | —  | —                                      | T                                   | —                      |
| 3  | PXT                           | —  | TXT                                    | R                                   | —                      |
| 4  | —                             | T  | PXR                                    | —                                   | T                      |
| 5  | —                             | R  | PXT                                    | No connection<br>4-pin modular jack | R                      |
| 6  | PXR                           | —  | TXR                                    | No connection<br>4-pin modular jack | —                      |
| 7  | -48VDC                        | (-48VDC)   | (-48VDC)                               | No connection<br>4-pin modular jack | -48VDC                 |
| 8  | GRD                           | GRD  | GRD                                    |                                     | GRD                    |
| Circuit pack   | TN754 4-wire digital (8 port) | TN2181 2-wire digital (16 Port)<br>TN2224 2-wire digital (24 port) | TN556 ISDN-BRI line                    | TN2183 analog line (16 port)        | TN2198 2-wire BRI line |
| PX PBX transmit—T Tip (A)<br>TX Terminal transmit—R Ring (B) |                               |  |  |                                     |                        |

**Table 13: Auxiliary lead appearances at the AUX connector (RJ21) for MCC1 and SCC1 media gateways**

| Wire color | RJ21 25-pair connector pin | Output             | Power                          |
|------------|----------------------------|--------------------|--------------------------------|
| W-BL       | 26                         | Major <sup>1</sup> | —                              |
| BL-W       | 1                          | Major GRD          | —                              |
| W-O        | 27                         | Minor <sup>2</sup> | —                              |
| 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      | —                              |
| 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 |

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**Table 13: Auxiliary lead appearances at the AUX connector (RJ21) for MCC1 and SCC1 media gateways (continued)**

| Wire color | RJ21 25-pair connector pin | Output                   | 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            | —                                |
| 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 <sup>3</sup> | —                                |
| G-V        | 23                         | Ext alarm return         | —                                |
| V-BR       | 49                         | Not connected            | —                                |
| BR-V       | 24                         | Not connected            | —                                |

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**Table 13: Auxiliary lead appearances at the AUX connector (RJ21) for MCC1 and SCC1 media gateways (continued)**

| Wire color | RJ21 25-pair connector pin | Output     | Power |
|------------|----------------------------|------------|-------|
| 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

**Table 14: 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) |

**1 of 3**

**Table 14: Global power distribution unit (MCC1–J58890CH) external alarm (RJ21) connector (continued)**

| <b>RJ21<br/>25-pair<br/>connector<br/>pin</b> | <b>Designation</b> | <b>Definition</b>                                |
|---|--------------------|--|
| 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)           |
| 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           | —  |

**Table 14: Global power distribution unit (MCC1–J58890CH) external alarm (RJ21) connector (continued)**

| <b>RJ21<br/>25-pair<br/>connector<br/>pin</b> | <b>Designation</b> | <b>Definition</b> |
|---|--------------------|-------------------|
| 45  | Not used           | —                 |
| 20  | Not used           | —                 |
| 46  | Not used           | —                 |
| 21  | Not used           | —                 |
| 47  | Not used           | —                 |
| 22  | Not used           | —                 |
| 48  | Not used           | —                 |
| 23  | Not used           | —                 |
| 49  | Not used           | —                 |
| 24  | Not used           | —                 |
| 50  | Not used           | —                 |
| 25  | Not used           | —                 |
| <b>3 of 3</b>                                 |                    |                   |

**Table 15: TN799 C-LAN**

| Wire color | RJ21 25-pair connector pin | Backplane pin | Lead name |
|------------|----------------------------|---------------|-----------|
| W-O        | 27                         | 103           | TD+       |
| O-W        | 2                          | 003           | TD-       |
| W-G        | 28                         | 104           | RD+       |
| G-W        | 3                          | 004           | RD-       |

**Table 16: Ethernet adapter (black) for TN799DP C-LAN, TN2302AP IP Media Processor, and TN2501AP VAL**

| To RJ45 jack | From 50-pin plug | Function |
|--------------|------------------|----------|
| 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 17: Ethernet adapter for TN2602AP IP Media Resource 320 (can be used for TN2302AP)**

| To RJ45 jack (port 1) | To RJ45 jack (port 2) | From 50-pin plug | Function |
|-----------------------|-----------------------|------------------|----------|
| 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 18: TN2312AP IP server interface adapter**

| To RJ45 jack | From 50-pin plug | Function  |
|--------------|------------------|-----------|
| 1            | 43               | TX+       |
| 2            | 18               | TX-       |
| 3            | 44               | RX+       |
| 6            | 19               | RX-       |
| —            | 39 <sup>1</sup>  | FP-NBPSEL |
| —            | 14 <sup>1</sup>  | GRD       |

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

**Table 19: TN2312BP IP server interface adapter (grey-700263502)**

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

1. The code on the left is for the color of the wire. The code on the right is for the color of the stripe on the wire. The codes and their corresponding colors are as follows: W—white, BL—blue, O—orange, BR—brown, S—slate (grey), R—red, BK—black, V—violet, Y—yellow, and G—green.

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