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1-800-Belden1



General Description:

10GX Patch Cord, Bonded-Pair, 4-Pair, 24 AWG Solid, CMR, T568A/B-T568A/B, Black, 15 ft. (4.6 m).

Usage (Overall)

| | |
|------------------------|------------------------------------------------------------|
| Suitable Applications: | IBDN System 10GX, TIA Category 6A, ISO Class EA, 10GBASE-T |
| Related Parts: | 10GX Modular Jacks, 10GX Patch Panels |

Multi Conductor

Physical Characteristics

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4 | 24 | Solid | BC - Bare Copper |

Insulation

Insulation Material:

| Insulation Material |
|---------------------|
| PO - Polyolefin |

Inner Jacket

Inner Jacket Material:

| Inner Jacket Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Shield

Outer Shield Material:

| Outer Shield Trade Name | Type | Outer Shield Material |
|-------------------------|------|-----------------------|
| Floating Screen | Foil | AL - Aluminum |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Jacket Color Code Chart:

| Color |
|-------|
| Black |

Overall Cabling

Overall Cabling Fillers: Cross Web

Overall Diameter

| | |
|----------------------------|-----------|
| Overall Nominal Diameter: | 0.285 in. |
| Individual Cable Diameter: | 0.285 in. |

Physical Characteristics (Connectivity)

Materials

Materials:

| Description | Type | Material |
|------------------|--------|--------------------------------------------------------|
| Plug | RJ45 | Polycarbonate |
| Boot | | Rubber |
| Front Connection | Blades | Phosphor Bronze with 50u inch Gold over Nickel Plating |

Color

Boot Color: Translucent

Wiring Scheme

Wiring Scheme: T568A/B-T568A/B

Weight

Weight: 0.380 lbs.

Packaging

Packaging: Individually packaged in a clear plastic bag.

Mechanical Characteristics (Connectivity)

Plug / Jack Compatibility: RJ45

Termination Interface:

| Termination | Connection | Durabilities |
|-------------|------------------|--------------|
| RJ45 | Mated Connection | 750 Cycles |

Storage Temperature Range: -40°C To +70°C

Installation Temperature Range: -10°C To +60°C

Operating Temperature Range: -10°C To +60°C

Max. Recommended Pull Tension: 25 lbs.

Min. Bend Radius (Overall Cable): 1.040 in.

Environmental/Mechanical Characteristics:

| Test (Method) | TIA 568-C.3 | Belden |
|---------------------------|-------------------------------------|-------------------------------------|
| Thermal Cycling (FOTP-3) | n/a | -40 to 75°C cycling for 7 days |
| Temperature Life (FOTP-4) | 60°C for 4 days | 85°C for 7 days |
| Humidity (FOTP-5) | 90-95% at 40°C for 4 days | 95% @ 75°C for 7 days |
| Durability (FOTP-21) | 500 cycles | 6 x 200 cycles (3 Elevations) |
| Cable Retention (FOTP-6) | 5.0 kg @ 0 deg., 1.94 kg @90 deg. | 6.8 kg @ 0 deg., 3.4 kg @ 90 deg. |
| Flex (FOTP-1) | 0.5 kg @ 90° to -90° for 100 cycles | 0.9 kg @ 90° to -90° for 100 cycles |
| Twist (FOTP-36) | 1.5 kg for 10 cycles | 1.5 kg for 10 cycles |

Overall Length Tolerances:

| Range | Tolerance | Range | Tolerance | Range | Tolerance |
|-------------------|-------------------|-------------------|-----------------|----------------------------|----------------------------|
| Sx & Dx Patchcord | Sx & Dx Patchcord | MPO Trunk | MPO Trunk | Multi-Fiber Cable Assembly | Multi-Fiber Cable Assembly |
| 0 to 2 meters | +0.2 / -0 meter | 0 to 2 meters | +0.2 / -0 meter | 0 to 2 meters | +0.2 / -0 meter |
| 2.1 to 5.0 meters | +0.3 / -0 meter | 2.1 to 5.0 meters | +0.3 / -0 meter | 2.1 to 5.0 meters | +0.3 / -0 meter |
| 5.1 to 40 meters | +0.4 / -0 meter | 5.1 to 20 meters | +0.4 / -0 meter | 5.1 to 20 meters | +0.4 / -0 meter |
| Over 40.1 meters | + 1.0% / -0% | Over 20.1 meters | + 1.0% / -0% | Over 20.1 meters | + 1.3 / -0 meter |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

UL Rating: Riser

Other Standards: FCC Part 68, Subpart F, IEC 60603-7

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2006

MIL Order #39 (China RoHS): EUP 50

Telecommunications Standards: Category 6A - TIA 568.B.2-10, ISO/IEC 11801:2002 Amendment 2

Safety Listing: ACA, Bi-national Standard Listed

Suitability

Suitability - Indoor: Yes

Transmission Characteristics (Connectivity)

Optical Connector Performance:

| Description | OM1 | OM2 | OM3 | OM4 | OS2 / UPC | OS2 / APC |
|-----------------------------|--------|--------|--------|---------|-----------|-----------|
| Maximum Insertion Loss (dB) | 0.5 dB | 0.5 dB | 0.5 dB | 0.15 dB | 0.5 dB | 0.5 dB |
| Minimum Reflectance (dB) | -20 dB | -20 dB | -20 dB | -20 dB | -50 dB | - 65 dB |

Performance Table 1:

| Frequency (MHz) | Max. Insertion Loss TIA* (dB) | Max. Insertion Loss Belden (dB) | Min. PSNEXT TIA* (dB) | Min PSNEXT Belden (dB) | Min. PSACRF TIA* (dB) | Min. PSACRF Belden (dB) |
|-----------------|-------------------------------|---------------------------------|-----------------------|------------------------|-----------------------|-------------------------|
| 1.000 | 2.500 | 2.400 | 72.300 | 72.300 | 64.800 | 64.800 |
| 4.000 | 4.600 | 4.500 | 63.300 | 63.300 | 52.800 | 52.800 |
| 8.000 | 6.400 | 6.300 | 58.800 | 58.800 | 46.700 | 46.700 |
| 10.000 | 7.100 | 7.000 | 57.300 | 57.300 | 44.800 | 44.800 |
| 16.000 | 9.000 | 8.900 | 54.200 | 54.300 | 40.700 | 40.700 |
| 20.000 | 10.100 | 10.000 | 52.800 | 52.800 | 38.800 | 38.800 |
| 25.000 | 11.300 | 11.100 | 51.300 | 51.300 | 36.800 | 36.800 |
| 31.250 | 12.600 | 12.500 | 49.900 | 49.900 | 34.900 | 34.900 |
| 62.500 | 18.000 | 17.900 | 45.400 | 45.400 | 28.900 | 28.900 |
| 100.000 | 22.900 | 22.800 | 42.300 | 42.300 | 24.800 | 24.800 |

CA21100015 Cable Assemblies - 10GX Modular Cord

| | | | | | | |
|---------|--------|--------|--------|--------|--------|--------|
| 200.000 | 33.100 | 33.000 | 37.800 | 37.800 | 18.800 | 20.900 |
| 250.000 | 37.300 | 37.200 | 36.300 | 36.300 | 16.800 | 16.800 |
| 300.000 | 41.200 | 41.000 | 35.100 | 35.200 | 15.300 | 15.300 |
| 400.000 | 48.100 | 48.000 | 33.300 | 33.300 | 12.800 | 13.900 |
| 500.000 | 54.400 | 54.300 | 31.800 | 31.800 | 10.800 | 11.700 |
| 625.000 | | 61.500 | | 30.400 | | 8.800 |

Performance Table - Footnote:

100 Meter Cable Specifications - * TIA/EIA-568-B.2-10-2008 Category 6A Standard

Performance Table 2:

| Frequency (MHz) | Min. Return Loss TIA* (dB) | Min. Return Loss Belden (dB) | Min. PSANEXT TIA* (dB) | Min. PSANEXT Belden (dB) | Min. PSAACR-F TIA* (dB) | Min. PSAACR-F Belden (dB) | Min. Balanced TCL TIA* (dB) | Min. Balanced TCL Belden (dB) |
|-----------------|----------------------------|------------------------------|------------------------|--------------------------|-------------------------|---------------------------|-----------------------------|-------------------------------|
| 1.000 | 20.000 | 20.000 | 67.000 | 87.000 | 67.000 | 75.000 | 40.000 | 48.000 |
| 4.000 | 23.000 | 23.000 | 67.000 | 87.000 | 66.200 | 75.000 | 40.000 | 48.000 |
| 8.000 | 24.500 | 24.500 | 67.000 | 87.000 | 60.100 | 75.000 | 40.000 | 48.000 |
| 10.000 | 25.000 | 25.000 | 67.000 | 87.000 | 58.200 | 75.000 | 40.000 | 48.000 |
| 16.000 | 25.000 | 25.000 | 67.000 | 87.000 | 54.100 | 70.900 | 38.000 | 46.000 |
| 20.000 | 25.000 | 25.000 | 67.000 | 87.000 | 52.200 | 69.000 | 37.000 | 45.000 |
| 25.000 | 24.200 | 25.000 | 67.000 | 87.000 | 50.200 | 67.000 | 36.000 | 44.000 |
| 31.250 | 23.300 | 25.000 | 67.000 | 87.000 | 48.300 | 65.100 | 35.100 | 43.100 |
| 62.500 | 20.700 | 25.000 | 65.600 | 85.600 | 42.300 | 59.100 | 32.000 | 40.000 |
| 100.000 | 19.000 | 25.000 | 62.500 | 82.500 | 38.200 | 55.000 | 30.000 | 38.000 |
| 200.000 | 16.400 | 21.000 | 58.000 | 78.000 | 32.200 | 49.000 | 27.000 | 35.000 |
| 250.000 | 15.600 | 20.500 | 56.500 | 76.500 | 30.200 | 47.000 | 26.000 | 34.000 |
| 300.000 | 14.900 | 20.100 | 55.300 | 75.300 | 28.700 | 43.800 | 25.200 | 33.200 |
| 400.000 | 13.800 | 19.500 | 53.500 | 73.500 | 26.200 | 38.800 | 24.000 | 32.000 |
| 500.000 | 13.000 | 18.400 | 52.000 | 72.000 | 24.200 | 35.000 | 23.000 | 31.000 |
| 625.000 | | 17.400 | | 65.000 | | 31.100 | | |

Dielectric Strength: 1,000 V RMS @ 60 Hz for 1 minute

Current Rating: 1.500 A

Insulation Resistance: 500 M-Ohm Minimum

Max. Contact Resistance: 20 m-Ohm

Notes (Overall)

Product Family

Product List:

| Length | Yellow | Green | Blue | Gray | White | Black |
|----------------|------------|------------|------------|------------|------------|------------|
| 2 ft. (0.6 m) | CA21104002 | CA21105002 | CA21106002 | CA21108002 | CA21109002 | CA21100002 |
| 3 ft. (0.9 m) | CA21104003 | CA21105003 | CA21106003 | CA21108003 | CA21109003 | CA21100003 |
| 4 ft. (1.2 m) | CA21194004 | CA21105004 | CA21106004 | CA21108004 | CA21109004 | CA21100004 |
| 5 ft. (1.5 m) | CA21104005 | CA21105005 | CA21106005 | CA21108005 | CA21109005 | CA21100005 |
| 6 ft. (1.8 m) | CA21104006 | CA21105006 | CA21106006 | CA21108006 | CA21109006 | CA21100006 |
| 7 ft. (2.1 m) | CA21104007 | CA21105007 | CA21106007 | CA21108007 | CA21109007 | CA21100007 |
| 8 ft. (2.4 m) | CA21104008 | CA21105008 | CA21106008 | CA21108008 | CA21109008 | CA21100008 |
| 9 ft. (2.7 m) | CA21104009 | CA21105009 | CA21106009 | CA21108009 | CA21109009 | CA21100009 |
| 10 ft. (3.0 m) | CA21104010 | CA21105010 | CA21106010 | CA21108010 | CA21109010 | CA21100010 |
| 12 ft. (3.6 m) | CA21104012 | CA21105012 | CA21106012 | CA21108012 | CA21109012 | CA21100012 |
| 15 ft. (4.6 m) | CA21104015 | CA21105015 | CA21106015 | CA21108015 | CA21109015 | CA21100015 |
| 25 ft. (7.6 m) | CA21104025 | CA21105025 | CA21106025 | CA21108025 | CA21109025 | CA21100025 |

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|------------|-------|-------------|-------|-------|------------------------------|
| CA21100015 | 1 EA | 0.580 LB | | | PATCHCORD B10GX CMR BLK 15FT |

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