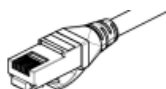
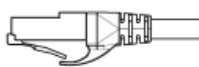


## CA21109002 Cable Assemblies - 10GX Modular Cord



For more Information  
please call

1-800-Belden1



### General Description:

10GX Patch Cord, Bonded-Pair, 4-Pair, 24 AWG Solid, CMR, T568A/B-T568A/B, White, 2 ft. (0.6 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 |
|-------|
| White |

### 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-D.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.                   |
| 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

**MII Order #39 (China RoHS):** EUP 50

**Telecommunications Standards:** 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                  |

## CA21109002 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

## Electrical Characteristics (Overall)

## Notes (Overall)

## Product Family

## Product List:

| Length         | Yellow     | Green      | Blue       | Gray       | White      | Black      | Red        | Orange     | Purple     |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 2 ft. (0.6 m)  | CA21104002 | CA21105002 | CA21106002 | CA21108002 | CA21109002 | CA21100002 | CA21102002 | CA21103002 | CA21107002 |
| 3 ft. (0.9 m)  | CA21104003 | CA21105003 | CA21106003 | CA21108003 | CA21109003 | CA21100003 | CA21102003 | CA21103003 | CA21107003 |
| 4 ft. (1.2 m)  | CA21104004 | CA21105004 | CA21106004 | CA21108004 | CA21109004 | CA21100004 | CA21102004 | CA21103004 | CA21107004 |
| 5 ft. (1.5 m)  | CA21104005 | CA21105005 | CA21106005 | CA21108005 | CA21109005 | CA21100005 | CA21102005 | CA21103005 | CA21107005 |
| 6 ft. (1.8 m)  | CA21104006 | CA21105006 | CA21106006 | CA21108006 | CA21109006 | CA21100006 | CA21102006 | CA21103006 | CA21107006 |
| 7 ft. (2.1 m)  | CA21104007 | CA21105007 | CA21106007 | CA21108007 | CA21109007 | CA21100007 | CA21102007 | CA21103007 | CA21107007 |
| 8 ft. (2.4 m)  | CA21104008 | CA21105008 | CA21106008 | CA21108008 | CA21109008 | CA21100008 | CA21102008 | CA21103008 | CA21107008 |
| 9 ft. (2.7 m)  | CA21104009 | CA21105009 | CA21106009 | CA21108009 | CA21109009 | CA21100009 | CA21102009 | CA21103009 | CA21107009 |
| 10 ft. (3.0 m) | CA21104010 | CA21105010 | CA21106010 | CA21108010 | CA21109010 | CA21100010 | CA21102010 | CA21103010 | CA21107010 |
| 12 ft. (3.6 m) | CA21104012 | CA21105012 | CA21106012 | CA21108012 | CA21109012 | CA21100012 | CA21102012 | CA21103012 | CA21107012 |
| 15 ft. (4.6 m) | CA21104015 | CA21105015 | CA21106015 | CA21108015 | CA21109015 | CA21100015 | CA21102015 | CA21103015 | CA21107015 |
| 25 ft. (7.6 m) | CA21104025 | CA21105025 | CA21106025 | CA21108025 | CA21109025 | CA21100025 | CA21102025 | CA21103025 | CA21107025 |

## Put Ups and Colors:

| Item #     | Putup | Ship Weight | Color | Notes | Item Desc                   |
|------------|-------|-------------|-------|-------|-----------------------------|
| CA21109002 | 1 EA  | 0.115 LB    |       |       | PATCHCORD B10GX CMR WHT 2FT |

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