

# DATA Sheet

## 10GX Modular Cords



**AX360015 CMR, 4-pair, 23 AWG solid,  
T568A/B-T568A/B Blue**

The 10GX Modular Cords are 4-pair 23 AWG UTP modular cords designed to be used within the Belden IBDN System 10GX.

To allow for data-rates of 10 Gb/s, the signal needs to be transmitted at frequencies up to a minimum of 500 MHz, as compared with Category 6 transmissions which run up to 200 MHz. To achieve communication at these high frequencies over UTP copper requires significant changes in the way the channel components are designed.

At these high frequencies, all components of a 10G channel begin to emit electromagnetic fields, which negatively impact the channels that are closest in physical proximity. This interaction between one channel and its neighboring channels is called Alien Near End Cross Talk (ANEXT). Overcoming this is one of the most difficult requirements of Augmented Cat 6 standard.

The second critical challenge to developing 10G modular cords is to control the electrical performance on all the other parameters up to a minimum of 500 MHz.

In order to achieve true 10G channel performance, Belden CDT Networking has designed the 10GX Modular Cord based on a patent-pending design: the management design allows for very good control of the internal plug NEXT. This allows the modular cord to deliver channel performance up to 625 MHz. The patch cable design offers very good Alien crosstalk performance, while maintaining the important mechanical characteristics such as flexibility.

The 10GX Modular Cords' design, with a very small footprint, makes them fully compatible with the highest density hubs that utilize RJ45 jack connections.

The 10GX Modular Cords are available in ten pantone colors that match the colors per the TIA/EIA-606 standard. The 10GX Modular Cords product line encompasses CMR modular cords, as well as open-ended cords.

The unmatched performance exceeds all parameters specified in the proposed Augmented Category 6 standard. All performance characteristics have been set to guarantee transmission performance up to 625 MHz.

The 10GX Modular Cord is designed to be used with the Belden IBDN System 10GX.

## Application

- > High density hubs
- > Telecommunications outlet connections
- > MUTO connections
- > Consolidation point connections
- > Patch panel connections
- > Equipment connections.



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### Technical Specifications

#### Physical Characteristics

##### Construction

- > Conductors: 23 AWG solid copper
- > Insulation: PE
- > Cable Core:
  - > Four twisted pairs
  - > Cross-web
- > Jacket: PVC
- > Boots: PVC
- > Plug: Polycarbonate.

#### Mechanical Characteristics

- > Durability: 1000 mating cycles
- > Contact material: phosphor bronze with 50 micro-inches gold over nickel
- > Nominal Cable Diameter: 6.62 mm (0.260 in.)
- > Minimum Bend Radius: 26.5 mm (1.04 in.).

### Electrical Characteristics

- > Dielectric strength: 1,000 V RMS at 60 Hz for 1 minute
- > Voltage rating: 150 VAC maximum
- > Current rating: 1.5 A maximum
- > Insulation resistance: 500 M $\Omega$  minimum
- > Contact resistance: 10 m $\Omega$  maximum.

### Packaging

- > Individually packaged in a clear plastic bag
- > Minimum ordering quantity: 10
- > Ordering increments: 10.

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## Transmission Characteristics

Minimum values for mated-connection measured with the 10GX Module and the 10GX Modular Cord. As per TIA/EIA Aug Cat6 Dec'04

FREQUENCY (MHz)	*NEXT (dB) (min.)	NEXT (dB) (min.)	PSANEXT (dB) (min.)	RETURN LOSS (dB) (min.)
0.772	96.2	96.2	112.2	70.2
1.0	94.0	94.0	110.0	68.0
4.0	82.0	82.0	98.0	56.0
8.0	75.9	75.9	91.9	49.9
10.0	74.0	74.0	90.0	48.0
16.0	69.9	69.9	85.9	43.9
20.0	68.0	68.0	84.0	42.0
25.0	66.0	66.0	82.0	40.0
31.25	64.1	64.1	80.1	38.1
62.5	58.1	58.1	74.1	32.1
100.0	54.0	54.0	70.0	28.0
200.0	48.0	48.0	64.0	22.0
250.0	46.0	46.0	62.0	20.0
300.0	42.9	44.5	60.5	18.5
350.0	40.2	43.1	59.1	17.1
400.0	37.9	42.0	58.0	16.0
450.0	35.8	40.9	56.9	14.9
500.0	34.0	40.0	56.0	14.0
550.0	32.3	39.2	55.2	13.2
600.0	30.8	38.4	54.4	12.4
625.0	30.1	38.1	54.1	12.1

\* Values as per Proposed Standard for Augmented Cat.6, TIA 568-B.2-10 Draft 1-4

## For More Information

For any other product information call:  
1-800-262-9334 (USA & Canada),  
1-514-822-7533 (International) or  
visit us at [www.BeldenIBDN.com](http://www.BeldenIBDN.com)

All information is subject to change without notice, since Belden CDT reserves the right to change its products as progress in engineering and manufacturing methods or other circumstances may warrant.

## Ordering Information

## 10GX Modular Cord, Augmented Category 6

DETAIL	ORDERING NUMBER					
10GX Modular Cord, 4-Pair, 23 AWG Solid, T568A/B - T568A/B, CMR	Blue	White	Gray	Green	Red	Yellow
2.1 m (7 ft)	AX360015	AX360051	AX360027	AX360021	AX360045	AX360057
3.0 m (10 ft)	AX360016	AX360052	AX360028	AX360022	AX360046	AX360058
4.6 m (15 ft)	AX360017	AX360053	AX360029	AX360023	AX360047	AX360059
7.6 m (25 ft)	AX360018	AX360054	AX360030	AX360024	AX360048	AX360060

## 10GX Pigtail, Augmented Category 6

DETAIL	ORDERING NUMBER
10GX Pigtail, 4-Pair, 23 AWG Solid, T568A - Open, CMR	Gray
4.6 m (15 ft)	AX360265
7.6 m (25 ft)	AX360266
10.6 m (35 ft)	AX360267
15.0 m (50 ft)	AX360268
10GX Pigtail, 4-Pair, 23 AWG Solid, T568B - Open, CMR	Gray
4.6 m (15 ft)	AX360269
7.6 m (25 ft)	AX360270
10.6 m (35 ft)	AX360271
15.0 m (50 ft)	AX360272