



**Product:** [10GX32](#)

10GX Category 6A Enhanced Cable, 4 Bonded-Pairs, U/UTP, CMR

### Product Description

10GX Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Bonded-Pairs, 23 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC Jacket

### Technical Specifications

#### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | Premise Horizontal Cable, Ethernet up to 10GBASE-T, HDBaseT, PoE++, PoE+, PoE  |
| Patent:                | This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> . |

#### Construction Details

##### Conductor

| Size   | Stranding | Material         | No. of Pairs |
|--------|-----------|------------------|--------------|
| 23 AWG | Solid     | BC - Bare Copper | 4            |

##### Insulation

| Material        | Color Code   |
|-----------------|--|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |
| Bonded-Pair:    | Yes  |

##### Outer Jacket

| Separator                                | Material                 | Nom. Diameter      | Ripcord |
|--|--------------------------|--------------------|---------|
| Double H Cross-Web (Patented RoundFlex®) | PVC - Polyvinyl Chloride | 0.295 in (7.49 mm) | Yes     |
| Overall Cable Diameter (Nominal):        | 0.295 in (7.49 mm)       |                    |         |

#### Electrical Characteristics

##### Electricals

| Max. Conductor DCR        | Max. Capacitance Unbalance |
|---------------------------|----------------------------|
| 74 Ohm/km (23 Ohm/1000ft) | 330 pF/100m                |

##### Delay

| Frequency | Max. Delay    | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz   | 537.6 ns/100m | 30 ns/100m      | 64%                    |

##### High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] | Min. PSANEXT [dB] | Min. PSAACRF [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--|----------------------------------|-------------------|-------------------|---------------|------------------|
| 1               | 2.1 dB/100m                       | 75.3           | 73.3             | 73.2          | 71.2            | 70.8                    | 68.8                        | 20.0                       | 100 ± 15                                   | 100 ± 15                         | 67.0              | 67.0              | 48.0          | 43.0             |
| 4               | 3.8 dB/100m                       | 66.3           | 64.3             | 62.5          | 60.5            | 58.8                    | 56.8                        | 23.0                       | 100 ± 15                                   | 100 ± 10.4                       | 67.0              | 67.0              | 48.0          | 41.0             |
| 8               | 5.3 dB/100m                       | 61.8           | 59.8             | 56.4          | 54.4            | 52.7                    | 50.7                        | 24.5                       | 100 ± 15                                   | 100 ± 8                          | 67.0              | 61.1              | 48.0          | 24.9             |
| 10              | 5.9 dB/100m                       | 60.3           | 58.3             | 54.4          | 52.4            | 50.8                    | 48.8                        | 25.0                       | 100 ± 15                                   | 100 ± 7.3                        | 67.0              | 59.2              | 48.0          | 23.0             |
| 16              | 7.5 dB/100m                       | 57.2           | 55.2             | 49.8          | 47.8            | 46.7                    | 44.7                        | 25.0                       | 100 ± 15                                   | 100 ± 5                          | 67.0              | 55.1              | 46.0          | 18.9             |
| 20              | 8.4 dB/100m                       | 55.8           | 53.8             | 47.4          | 45.4            | 44.8                    | 42.8                        | 25.0                       | 100 ± 15                                   | 100 ± 5                          | 67.0              | 53.2              | 45.0          | 17.0             |
| 25              | 9.4 dB/100m                       | 54.3           | 52.3             | 45.0          | 43.0            | 42.8                    | 40.8                        | 25.0                       | 100 ± 15                                   | 100 ± 5                          | 67.0              | 51.2              | 44.0          | 15.0             |

|       |              |      |      |      |      |      |      |      |          |         |      |      |      |
|-------|--------------|------|------|------|------|------|------|------|----------|---------|------|------|------|
| 31.25 | 10.5 dB/100m | 52.9 | 50.9 | 42.4 | 40.4 | 40.9 | 38.9 | 25.0 | 100 ± 15 | 100 ± 5 | 67.0 | 49.3 | 43.1 |
| 62.5  | 15.0 dB/100m | 48.4 | 46.4 | 33.4 | 31.4 | 34.9 | 32.9 | 25.0 | 100 ± 15 | 100 ± 5 | 66.6 | 43.3 | 40.0 |
| 100   | 19.1 dB/100m | 45.3 | 43.3 | 26.2 | 24.2 | 30.8 | 28.8 | 25.0 | 100 ± 15 | 100 ± 5 | 63.5 | 39.2 | 38.0 |
| 200   | 27.6 dB/100m | 40.8 | 38.8 | 13.2 | 11.2 | 24.8 | 22.8 | 21.0 | 100 ± 22 | 100 ± 5 | 59.0 | 33.2 | 35.0 |
| 250   | 31.1 dB/100m | 39.3 | 37.3 | 8.3  | 6.3  | 22.8 | 20.8 | 20.5 | 100 ± 32 | 100 ± 5 | 57.5 | 31.2 | 34.0 |
| 300   | 34.3 dB/100m | 38.1 | 36.1 | 3.9  | 1.9  | 21.3 | 19.3 | 20.1 | 100 ± 32 | 100 ± 5 | 56.3 | 29.7 | 33.2 |
| 350   | 37.2 dB/100m | 37.1 | 35.1 |      |      | 19.9 | 17.9 | 19.8 | 100 ± 32 | 100 ± 5 | 55.3 | 28.3 | 32.6 |
| 400   | 40.1 dB/100m | 36.3 | 34.3 |      |      | 18.8 | 16.8 | 19.5 | 100 ± 32 | 100 ± 5 | 54.5 | 27.2 | 32.0 |
| 450   | 42.7 dB/100m | 35.5 | 33.5 |      |      | 17.7 | 15.7 | 18.9 | 100 ± 32 | 100 ± 5 | 53.7 | 26.1 | 31.5 |
| 500   | 45.3 dB/100m | 34.8 | 32.8 |      |      | 16.8 | 14.8 | 18.4 | 100 ± 32 | 100 ± 5 | 53.0 | 25.2 | 31.0 |
| 550   | 47.7 dB/100m | 34.2 | 32.2 |      |      | 16.0 | 14.0 | 18.0 | 100 ± 32 | 100 ± 5 | 52.4 | 24.4 |      |
| 600   | 50.1 dB/100m | 33.6 | 31.6 |      |      | 15.2 | 13.2 | 17.6 | 100 ± 32 | 100 ± 5 | 51.8 | 23.6 |      |
| 625   | 51.2 dB/100m | 33.4 | 31.4 |      |      | 14.9 | 12.9 | 17.4 | 100 ± 32 | 100 ± 5 | 51.6 | 23.3 |      |
| 750   | 56.7 dB/100m | 32.2 | 30.2 |      |      | 13.3 | 11.3 | 16.5 |          |         | 50.4 | 21.7 |      |
| 860   | 61.2 dB/100m | 31.3 | 29.3 |      |      | 12.1 | 10.1 | 15.8 |          |         | 49.5 | 20.5 |      |

#### Voltage

| UL Voltage Rating         |
|---------------------------|
| 300 V (CMR), 300 V (CL3R) |

#### Mechanical Characteristics

##### Temperature

| UL Temperature | Operating      | Installation | Storage        |
|----------------|----------------|--------------|----------------|
| 90°C           | -20°C To +75°C | 0°C To +50°C | -20°C To +75°C |

##### Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 0.6 in (15 mm)  | 3.0 in (76 mm)    |

Max. Pull Tension: 40 lbs (18 kg)

Bulk Cable Weight: 40 lbs/1000ft

#### Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Riser, Indoor   |
| Sustainability:                  | Product Lens™, Environmental Product Declaration (EPD) Available  |
| Flammability / Reaction to Fire: | UL 1666 Riser, FT4, IEC 60332-1-2   |
| CPR Compliance:                  | CPR Euroclass: Eca  |
| NEC / UL Compliance:             | Article 800, CMR, CMR-LP (0.5A), CL3R-LP (0.5A)   |
| CEC / C(UL) Compliance:          | CMR   |
| ICEA Compliance:                 | S-116-732   |
| IEEE Compliance:                 | IEEE 802.3bt Type 1, Type 2, Type 3, Type 4   |
| NEMA Compliance:                 | ANSI/NEMA WC-66   |
| Data Category:                   | Category 6A   |
| TIA/EIA Compliance:              | ANSI/TIA-568.2-D Category 6A  |
| ISO/IEC Compliance:              | ISO/IEC 11801-1, IEC 61156-5  |
| CENELEC Compliance:              | Segregation class according EN50174-2 = a   |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| UK Regulation Compliance:        | UKCA Mark   |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)   |
| Plenum Number:                   | 10GX33  |

#### Product Notes

|        |  |
|--------|--|
| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 625 MHz are for Engineering Information Only. 0.295" Cable Dimension per TIA 6@1 Equivalent Diameter. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. |
|--------|--|

#### History

Update and Revision: Revision Number: 0.524 Revision Date: 09-05-2023

## Part Numbers

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### Variants

| Item #         | Color  | Putup Type | Length   | UPC          | Footnote |
|----------------|--------|------------|----------|--------------|----------|
| 10GX32 0061000 | Blue   | Reel       | 1,000 ft | 612825102304 |          |
| 10GX32 0081000 | Gray   | Reel       | 1,000 ft | 612825102311 | C        |
| 10GX32 0091000 | White  | Reel       | 1,000 ft | 612825102328 | C        |
| 10GX32 0041000 | Yellow | Reel       | 1,000 ft | 612825102298 | C        |

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