



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 https://www.belden.com/patents . |

Construction Details

Conductor

| Size | Stranding | Material | Number 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 |
| 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) |
| Other Standard Compliance(s): | Verified Channel/Category 6A |
| Plenum Number: | 10GX33 |

Product Notes

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| 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. |
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History

Part Numbers

Variants

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

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