



Product: [10GX62F](#)

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

Product Description

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

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Premise Horizontal Cable, Ethernet up to 10GBASE-T, Wi-Fi 6, Wi-Fi 5, Surveillance, HDBaseT, PoE++, PoE+, PoE, Noisy Environments |
| Patent: | This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents . |

Construction Details

Conductor

| AWG | Stranding | Material | Number of Pairs |
|-----|-----------|------------------|-----------------|
| 23 | Solid | BC - Bare Copper | 4 |

Insulation

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

Inner Jacket Material

| Material | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.26 in | Yes |

Outer Shield Material

| Type | Material | Coverage | Drainwire Type |
|------|-------------------------|----------|------------------|
| Tape | Bi-Laminate (Alum+Poly) | 100% | 26 AWG (7x34) TC |

Outer Jacket Material

| Separator Material | Material | Nom. Diameter | Ripcord |
|------------------------------------|--------------------------|---------------|---------|
| Center Member (Patented X-Spline®) | PVC - Polyvinyl Chloride | 0.300 in | Yes |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. DCR Unbalanced Between Pairs [%] | Max. Capacitance Unbalance | Nom. Mutual Capacitance | Nom. Velocity of Prop. |
|--------------------|--------------------|---------------------------------------|----------------------------|-------------------------|------------------------|
| 82 Ohm/km | 3% | 5% | 90 pF/100m | 17 pF/ft | 64% |

Delay

| Frequency [MHz] | Max. Delay | Max. Delay Skew | Nom. Velocity of Propagation (VP) [%] |
|-----------------|---------------|-----------------|---------------------------------------|
| 100 MHz | 537.6 ns/100m | 45 ns/100m | 64% |

High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. PSNEXT [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance | Min. PSANEXT | Min. PSAACRF | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|------------------|-----------------|-------------------------|-----------------------------|----------------------------|--------------------------------------|----------------------------|--------------|--------------|---------------|------------------|
| 1 MHz | 2.1 dB/100m | 73.3 dB | 71.2 dB | 70.8 dB | 68.8 dB | 20.0 dB | 100 ± 15 Ohm | 105 ± 10 Ohm | 77.0 dB | 77.0 dB | 40.0 dB | 35.0 dB |

| | | | | | | | | | | | | |
|-----------|--------------|---------|---------|---------|---------|---------|--------------|--------------|---------|---------|---------|---------|
| 4 MHz | 3.8 dB/100m | 64.3 dB | 60.5 dB | 58.8 dB | 56.8 dB | 23.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm | 77.0 dB | 76.2 dB | 40.0 dB | 23.0 dB |
| 8 MHz | 5.3 dB/100m | 59.8 dB | 54.4 dB | 52.7 dB | 50.7 dB | 24.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm | 77.0 dB | 70.1 dB | 40.0 dB | 16.9 dB |
| 10 MHz | 5.9 dB/100m | 58.3 dB | 52.4 dB | 50.8 dB | 48.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm | 77.0 dB | 68.2 dB | 40.0 dB | 15.0 dB |
| 16 MHz | 7.5 dB/100m | 55.2 dB | 47.8 dB | 46.7 dB | 44.7 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm | 77.0 dB | 64.1 dB | 38.0 dB | 10.9 dB |
| 20 MHz | 8.4 dB/100m | 53.8 dB | 45.4 dB | 44.8 dB | 42.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm | 77.0 dB | 62.2 dB | 37.0 dB | 9.0 dB |
| 25 MHz | 9.4 dB/100m | 52.3 dB | 43.0 dB | 42.8 dB | 40.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm | 77.0 dB | 60.2 dB | 36.0 dB | 7.0 dB |
| 31.25 MHz | 10.5 dB/100m | 50.9 dB | 40.4 dB | 40.9 dB | 38.9 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 10 Ohm | 77.0 dB | 58.3 dB | 35.1 dB | |
| 62.5 MHz | 15.0 dB/100m | 46.4 dB | 31.4 dB | 34.9 dB | 32.9 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 10 Ohm | 77.0 dB | 52.3 dB | 32.0 dB | |
| 100 MHz | 19.1 dB/100m | 43.3 dB | 24.2 dB | 30.8 dB | 28.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 10 Ohm | 72.5 dB | 48.2 dB | 30.0 dB | |
| 200 MHz | 27.6 dB/100m | 38.8 dB | 11.2 dB | 24.8 dB | 22.8 dB | 18.0 dB | 100 ± 22 Ohm | 100 ± 10 Ohm | 68.5 dB | 42.2 dB | 27.0 dB | |
| 250 MHz | 31.1 dB/100m | 37.3 dB | 6.3 dB | 22.8 dB | 20.8 dB | 17.3 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 66.5 dB | 40.2 dB | 26.0 dB | |
| 300 MHz | 34.3 dB/100m | 36.1 dB | 1.9 dB | 21.3 dB | 19.3 dB | 16.8 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 65.3 dB | 38.7 dB | 25.2 dB | |
| 350 MHz | 37.2 dB/100m | 35.1 dB | -2.1 dB | 19.9 dB | 17.9 dB | 16.3 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 64.3 dB | 37.3 dB | 24.6 dB | |
| 400 MHz | 40.1 dB/100m | 34.3 dB | | 18.8 dB | 16.8 dB | 15.9 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 63.5 dB | 36.2 dB | 24.0 dB | |
| 450 MHz | 42.7 dB/100m | 33.5 dB | | 17.7 dB | 15.7 dB | 15.5 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 62.7 dB | 35.1 dB | 23.5 dB | |
| 500 MHz | 45.3 dB/100m | 32.8 dB | | 16.8 dB | 14.8 dB | 15.2 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 62.0 dB | 34.2 dB | 23.0 dB | |
| 550 MHz | 47.7 dB/100m | 32.2 dB | | 14.9 dB | 14.0 dB | 14.9 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 62.4 dB | 34.4 dB | | |
| 600 MHz | 50.1 dB/100m | 31.6 dB | | | 13.2 dB | 14.7 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 61.8 dB | 33.6 dB | | |
| 625 MHz | 51.2 dB/100m | 31.4 dB | | | | 12.9 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 61.6 dB | 33.3 dB | | |
| 750 MHz | 56.7 dB/100m | 30.2 dB | | | | 11.3 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 60.4 dB | 31.7 dB | | |
| 860 MHz | 61.2 dB/100m | 29.3 dB | | | | 10.1 dB | 100 ± 32 Ohm | 100 ± 10 Ohm | 59.5 dB | 30.5 dB | | |

Voltage

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

Mechanical Characteristics

Temperature

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

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 1.2 in | 3.0 in |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 40 lbs |
| Bulk Cable Weight: | 39 lbs/1000ft |

Standards and Compliance

| | |
|---------------------------------|--|
| Environmental Suitability: | Riser, Indoor |
| Sustainability: | Product Lens™, Environmental Product Declaration (EPD) Available |
| Flammability / Fire Resistance: | UL 1666 Riser, FT4, FT4, IEC 60332-1-2 |
| NEC / UL Compliance: | 800, CMR |
| CEC / C(UL) Compliance: | CMR |
| ICEA Compliance: | S-116-732-2013 |
| 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 |
| CPR Euroclass: | Eca |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Other Standard Compliance(s): | Verified Channel/Category 6A |

Part Number

| | |
|----------------|---------|
| Plenum Number: | 10GX63F |
|----------------|---------|

Variants

| Item # | Color | Putup Type | Length | UPC |
|--------|-------|------------|--------|-----|
|--------|-------|------------|--------|-----|

| | | | | |
|-----------------|--------|------|----------|--------------|
| 10GX62F 0101000 | Black | Reel | 1,000 ft | 612825102465 |
| 10GX62F 0061000 | Blue | Reel | 1,000 ft | 612825102434 |
| 10GX62F 0081000 | Gray | Reel | 1,000 ft | 612825102441 |
| 10GX62F 0021000 | Red | Reel | 1,000 ft | 612825102410 |
| 10GX62F 0091000 | White | Reel | 1,000 ft | 612825102458 |
| 10GX62F 0041000 | Yellow | Reel | 1,000 ft | 612825102427 |

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. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. |
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History

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|----------------------|--|
| Update and Revision: | Revision Number: 0.412 Revision Date: 07-28-2020 |
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