



Product: [10GXE00D](#)

10GX Category 6A Enhanced Cable, 4 Pair, F/UTP, LSZH Indoor CPR Dca

Product Description

Category 6A Enhanced Premise Horizontal Cable (625MHz), 4-Pair, 23 AWG Solid Bare Copper Conductors, F/UTP, Polyethylene Insulation, Beldfoil® shield, AWG 26 solid tinned copper drainwire, LSZH Jacket

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Horizontal and building backbone cable; Support current and future Category 6A and 6 applications, such as: 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM |
| 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

| Element | Size | Stranding | Material | Number of Pairs | Number of Element |
|-----------------|--------|-----------|------------------|-----------------|-------------------|
| Individual Pair | 23 AWG | Solid | BC - Bare Copper | 4 | 8 |

Insulation

| Element | Material | Nom. Insulation Diameter | Color Code |
|-----------------|-------------------|--------------------------|--|
| Individual Pair | PE - Polyethylene | 1.18 mm (0.0465 in) | White/Blue & Blue, White/Orange & Orange, White/Green & Green, White/Brown & Brown |

Cable Core

| Description | Separator |
|---|------------------------------------|
| 4 pairs twisted to cable core covered with a polyester foil | Center Member (Patented X-Spline®) |

Outer Shield

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

Table Notes: Aluminum facing outside

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|---|------------------|---------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 7.2 mm (0.28 in) | Yes |

Overall Cable Diameter (Nominal): 7.2 mm (0.28 in)

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Mutual Capacitance | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|--------------------|-------------------------|----------------------------|-------------------------------|
| 95 Ohm/km | 56 pF/m (17 pF/ft) | 160 pF/100m | 100 Ohm |

Delay

| Max. Delay Skew | Nom. Velocity of Prop. |
|-----------------|------------------------|
| 45 ns/100m | 67% |

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 (PS ELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. PSANEXT [dB] | Min. PSAACRF [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|------------------------------|----------------------------|-------------------|-------------------|---------------|------------------|
| 1 | 2.1 dB/100m | 75.3 | 72.3 | 73.2 | 70.2 | 68 | 65 | 20 | 67 | 67 | 40 | 35 |
| 4 | 3.8 dB/100m | 66.3 | 63.3 | 62.5 | 59.5 | 56 | 53 | 23 | 67 | 66.2 | 34 | 23 |
| 10 | 5.9 dB/100m | 60.3 | 57.3 | 54.4 | 51.4 | 48 | 45 | 25 | 67 | 58.2 | 30 | 15 |
| 16 | 7.5 dB/100m | 57.2 | 54.2 | 49.8 | 46.8 | 43.9 | 40.9 | 25 | 67 | 54.1 | 28 | 10.9 |
| 31.2 | 10.5 dB/100m | 52.9 | 49.9 | 42.4 | 39.4 | 38.1 | 35.1 | 23.6 | 67 | 48.3 | 25.1 | 5.1 |
| 62.5 | 15 dB/100m | 48.4 | 45.4 | 33.4 | 30.4 | 32.1 | 29.1 | 21.5 | 65.6 | 42.3 | 22 | |
| 100 | 19.1 dB/100m | 45.3 | 42.3 | 26.2 | 23.2 | 28 | 25 | 20.1 | 62.5 | 38.2 | 20 | |
| 125 | 21.5 dB/100m | 43.8 | 40.8 | 22.3 | 19.3 | 26.1 | 23.1 | 19.4 | 61 | 36.3 | 19 | |
| 200 | 27.6 dB/100m | 40.8 | 37.8 | 13.2 | 10.2 | 22 | 19 | 18 | 58 | 32.2 | 17 | |
| 250 | 31.1 dB/100m | 39.3 | 36.3 | 8.3 | 5.3 | 20 | 17 | 17.3 | 56.5 | 30.2 | 16 | |
| 300 | 34.3 dB/100m | 38.1 | 35.1 | 3.9 | 0.9 | 18.5 | 15.5 | 17.3 | 55.3 | 28.7 | | |
| 500 | 45.3 dB/100m | 34.8 | 31.8 | -10.4 | -13.4 | 14 | 11 | 17.3 | 52 | 24.2 | | |
| 625 | 51.2 dB/100m | 33.4 | 30.4 | -17.8 | -20.8 | 12.1 | 9.1 | 17.3 | 50.6 | 22.3 | | |

Table Notes: Limits below 4 MHz and at 625 MHz are for information only. Reference standard: IEC 61156-5

Transfer Impedance

| Frequency | Max. Transfer Impedance |
|-----------|-------------------------|
| 1 Mhz | Max. 50 mOhm/m |
| 10 Mhz | Max. 100 mOhm/m |
| 30 Mhz | Max. 200 mOhm/m |
| 100 Mhz | Max. 1000 mOhm/m |

| | |
|---------------------------|----------------------|
| Transfer Impedance Class: | Grade 2 |
| Screening Class: | Type II |
| Table Notes: | Coupling Attenuation |

Voltage

| Voltage Rating |
|----------------|
| 72 V DC |

Mechanical Characteristics

Temperature

| Operating | Installation |
|----------------|--------------|
| -30°C to +60°C | 0°C To +50°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 29 mm (1.1 in) | 58 mm |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 80 N (18 lbf) |
| Bulk Cable Weight: | 50 kg/km |

Standards and Compliance

| | |
|----------------------------------|--|
| Environmental Suitability: | Indoor - Euroclass Dca |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Dca-s2,d1,a1 |
| IEEE Compliance: | PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4 |
| Data Category: | Category 6A |
| TIA/EIA Compliance: | ANSI/TIA 568.2-D |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61034-2 - Smoke Density Min Transmittance = 60% |
| CENELEC Compliance: | EN 50173-1, Segregation class according EN50174-2 = c |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |
| European Directive Compliance: | EU CE Mark |
| UK Regulation Compliance: | UKCA Mark |

Product Notes

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| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. |
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History

Update and Revision: Revision Number: 0.157 Revision Date: 03-08-2023

Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|----------------|--------|------------|--------|---------------|
| 10GXE00D.06100 | Blue | Reel | 100 m | 8719605142504 |
| 10GXE00D.06500 | Blue | Reel | 500 m | 8719605139832 |
| 10GXE00D.08100 | Gray | Reel | 100 m | 8719605142511 |
| 10GXE00D.08305 | Gray | Reel | 305 m | 8719605142528 |
| 10GXE00D.08500 | Gray | Reel | 500 m | 8719605142641 |
| 10GXE00D.04100 | Yellow | Reel | 100 m | 8719605155658 |
| 10GXE00D.04500 | Yellow | Reel | 500 m | 8719605155665 |

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