



**Product:** [10GX13](#)

10GX Category 6A Enhanced Cable, 4 Pair, U/UTP, CMP

## Product Description

10GX Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Plenum-CMP, Flamarrest® PVC-LS 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                                                 |
|--------------------------------------|------------------------------------------------------------|
| FEP - Fluorinated Ethylene Propylene | White & Blue, White & Orange, White & Green, White & Brown |

#### Outer Jacket

| Separator                                | Material                 | Material Trade Name | Nom. Diameter      | Ripcord |
|------------------------------------------|--------------------------|---------------------|--------------------|---------|
| Double H Cross-Web (Patented RoundFlex®) | PVC - Polyvinyl Chloride | Flamarrest®         | 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) | 50 pF/100m                 |

#### Delay

| Frequency | Max. Delay    | Max. Delay Skew | Nom. Velocity of Prop. | Typical Delay Skew |
|-----------|---------------|-----------------|------------------------|--------------------|
| 100 MHz   | 537.6 ns/100m | 45 ns/100m      | 68%                    | 35 ns/100m         |

#### High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. PSNEXT [dB] | Min. PSACR [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                       | 73.3             | 71.2            | 68.8                        | 20.0                       | 100 ± 15                                   | 100 ± 15                         | 67.0              | 67.0              | 40.0          | 35.0             |
| 4               | 3.8 dB/100m                       | 64.3             | 60.5            | 56.8                        | 23.0                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 67.0              | 40.0          | 23.0             |
| 8               | 5.3 dB/100m                       | 59.8             | 54.4            | 50.7                        | 24.5                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 61.1              | 40.0          | 16.9             |
| 10              | 5.9 dB/100m                       | 58.3             | 52.4            | 48.8                        | 25.0                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 59.2              | 40.0          | 15.0             |
| 16              | 7.5 dB/100m                       | 55.2             | 47.8            | 44.7                        | 25.0                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 55.1              | 40.0          | 10.9             |
| 20              | 8.4 dB/100m                       | 53.8             | 45.4            | 42.8                        | 25.0                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 53.2              | 38.0          | 9.0              |
| 25              | 9.4 dB/100m                       | 52.3             | 43.0            | 40.8                        | 24.3                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 51.2              | 36.0          | 7.0              |
| 31.25           | 10.5 dB/100m                      | 50.9             | 40.4            | 38.9                        | 23.6                       | 100 ± 15                                   | 100 ± 10                         | 67.0              | 49.3              | 35.1          |                  |

|      |              |      |      |      |      |          |          |      |      |      |  |
|------|--------------|------|------|------|------|----------|----------|------|------|------|--|
| 62.5 | 15.0 dB/100m | 46.4 | 31.4 | 32.9 | 21.5 | 100 ± 15 | 100 ± 10 | 66.6 | 43.3 | 32.0 |  |
| 100  | 19.1 dB/100m | 43.3 | 24.2 | 28.8 | 20.1 | 100 ± 15 | 100 ± 10 | 63.5 | 39.2 | 30.0 |  |
| 200  | 27.6 dB/100m | 38.8 | 11.2 | 22.8 | 18.0 | 100 ± 22 | 100 ± 10 | 59.0 | 33.2 | 27.0 |  |
| 250  | 31.1 dB/100m | 37.3 | 6.3  | 20.8 | 17.3 | 100 ± 32 | 100 ± 10 | 57.5 | 31.2 | 26.0 |  |
| 300  | 34.3 dB/100m | 36.1 | 1.9  | 19.3 | 16.8 | 100 ± 32 | 100 ± 10 | 56.3 | 29.7 | 25.2 |  |
| 350  | 37.2 dB/100m | 35.1 |      | 17.9 | 16.3 | 100 ± 32 | 100 ± 10 | 55.3 | 28.3 | 24.6 |  |
| 400  | 40.1 dB/100m | 34.3 |      | 16.8 | 15.9 | 100 ± 32 | 100 ± 10 | 54.5 | 27.2 | 24.0 |  |
| 450  | 42.7 dB/100m | 35.5 |      | 15.7 | 15.5 | 100 ± 32 | 100 ± 10 | 53.7 | 26.1 | 23.5 |  |
| 500  | 45.3 dB/100m | 32.8 |      | 14.8 | 15.2 | 100 ± 32 | 100 ± 10 | 53.0 | 25.2 | 23.0 |  |
| 550  | 47.7 dB/100m | 32.2 |      | 14.0 | 14.9 | 100 ± 32 | 100 ± 10 | 52.4 | 24.4 |      |  |
| 600  | 50.1 dB/100m | 31.6 |      | 13.2 | 14.7 | 100 ± 32 | 100 ± 10 | 51.8 | 23.6 |      |  |
| 625  | 51.2 dB/100m | 31.4 |      | 12.9 | 14.5 | 100 ± 32 | 100 ± 10 | 51.6 | 23.3 |      |  |
| 750  | 56.7 dB/100m | 30.2 |      | 11.3 | 14.0 |          |          | 50.4 | 21.7 |      |  |
| 860  | 61.2 dB/100m | 29.3 |      | 10.1 | 13.6 |          |          | 49.5 | 20.5 |      |  |

Voltage

| UL Voltage Rating         |
|---------------------------|
| 300 V (CMP), 300 V (CL3P) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating      | Installation | Storage        |
|----------------|----------------|--------------|----------------|
| 105°C          | -20°C To +75°C | 0°C To +50°C | -20°C To +75°C |

Bend Radius

| Stationary Min.   | Installation Min. |
|-------------------|-------------------|
| 1.25 in (31.8 mm) | 3.0 in (76 mm)    |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 25 lbs (11 kg) |
| Bulk Cable Weight: | 43 lbs/1000ft  |

Standards and Compliance

|                                  |                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | Plenum, Indoor                                                                                                                                      |
| Sustainability:                  | Product Lens™, Environmental Product Declaration (EPD) Available                                                                                    |
| Flammability / Reaction to Fire: | NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2                                                                                                       |
| CPR Compliance:                  | CPR Euroclass: Eca; CPR UKCA Class: Eca                                                                                                             |
| NEC / UL Compliance:             | Article 800, CMP, CMP-LP (0.6A), CL3P-LP (0.6A)                                                                                                     |
| CEC / C(UL) Compliance:          | CMP                                                                                                                                                 |
| 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)                                                                                                                     |
| Non-Plenum Number:               | 10GX12                                                                                                                                              |

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: 0.574 Revision Date: 04-29-2024 |
|----------------------|--------------------------------------------------|

Part Numbers

**Variants**

| Item #         | Color  | Putup Type | Length   | UPC          |
|----------------|--------|------------|----------|--------------|
| 10GX13 0101000 | Black  | Reel       | 1,000 ft | 612825102274 |
| 10GX13 0101500 | Black  | Reel       | 1,500 ft | 612825102281 |
| 10GX13 D151000 | Blue   | Reel       | 1,000 ft | 612825102182 |
| 10GX13 D152500 | Blue   | Reel       | 2,500 ft | 612825102199 |
| 10GX13 0081000 | Gray   | Reel       | 1,000 ft | 612825102250 |
| 10GX13 0051000 | Green  | Reel       | 1,000 ft | 612825102236 |
| 10GX13 0071000 | Purple | Reel       | 1,000 ft | 612825102243 |
| 10GX13 0091000 | White  | Reel       | 1,000 ft | 612825102267 |
| 10GX13 0041000 | Yellow | Reel       | 1,000 ft | 612825102205 |
| 10GX13 0042500 | Yellow | Reel       | 2,500 ft | 612825102212 |
| 10GX13 0045000 | Yellow | Reel       | 5,000 ft | 612825102229 |

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