

10GX44 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable



For more Information
please call

1-800-Belden1



General Description:

Category 6A (625MHz), 4-Pair, U/UTP-Unshielded, Zero Halogen, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented Double-H spline, Ripcord, LSZH Jacket

Usage (Overall)

Suitable Applications: Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 10G Category 6A

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4 | 23 | Solid | BC - Bare Copper |

Total Number of Conductors: 8

Insulation

Insulation Material:

| Insulation Material |
|---------------------|
| PO - Polyolefin |

Separator

Separator Material: RoundFlex H-Spline Center Member

Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|-------------------------------|
| LSZH - Low Smoke Zero Halogen |

Overall Cable

Overall Nominal Diameter: 7.493 mm

Pair

Pair Color Code Chart:

| Number | Color |
|--------|------------------------------|
| 1 | White/Blue Stripe & Blue |
| 2 | White/Orange Stripe & Orange |
| 3 | White/Green Stripe & Green |
| 4 | White/Brown Stripe & Brown |

Mechanical Characteristics (Overall)

Operating Temperature Range: 0°C To +75°C

Bulk Cable Weight: 59.528 Kg/Km

Max. Recommended Pulling Tension: 200.169 N

Min. Bend Radius/Minor Axis: 50.800 mm

Min. Bend/Installation: 76.200 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

10GX44 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable

| | |
|---------------------------------------|------------------------------------|
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 12/09/2011 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| Telecommunications Standards: | Category 6A - TIA 568.C.2 |
| Other Specification: | UL Channel Verified to Category 6A |

Applicable Patents:

| |
|------------------|
| Country |
| www.belden.com/p |

Suitability

| | |
|------------------------|--------------|
| Suitability - Indoor: | Yes - Indoor |
| Suitability - Outdoor: | No |
| Suitability - Aerial: | No |
| Suitability - Burial: | No |
| Sunlight Resistance: | No - Indoor |

Plenum/Non-Plenum

| | |
|--------------------|--------|
| Plenum (Y/N): | No |
| Non-Plenum Number: | 10GX32 |

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

| |
|---------------------------|
| Capacitance (pF/m) |
| 55.777 |

| | |
|---|----|
| Maximum Capacitance Unbalance (pF/100 m): | 50 |
|---|----|

Nominal Velocity of Propagation:

| |
|---------------|
| VP (%) |
| 64.000 |

Maximum Delay:

| |
|-------------------------|
| Delay (ns/100 m) |
| 538 @ 100MHz |

Typical Delay Skew:

| |
|--------------------------|
| Delay Skew (ns/m) |
| 114.835 |

Max. Delay Skew:

| |
|------------------------------|
| Delay Skew (ns/100 m) |
| 45.000 |

Nom. Conductor DC Resistance:

| |
|----------------------------|
| DCR @ 20°C (Ohm/km) |
| 24.608 |

Max. Operating Voltage - UL:

| |
|----------------|
| Voltage |
| 300 V RMS |

Maximum DCR Unbalanced:

| |
|---------------------------------|
| DCR Unbalance @ 20°C (%) |
| 2.000 |

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) | Min RL (dB) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|
| 1 | 2.100 | 75.3 | 73.3 | 73.2 | 71.2 | 20.000 |
| 4 | 3.800 | 66.3 | 64.3 | 62.5 | 60.5 | 23.000 |
| 8 | 5.300 | 61.8 | 59.8 | 56.4 | 54.4 | 24.500 |
| 10 | 5.900 | 60.3 | 58.3 | 54.4 | 52.4 | 25.000 |
| 16 | 7.500 | 57.2 | 55.2 | 49.8 | 47.8 | 25.000 |
| 20 | 8.400 | 55.8 | 53.8 | 47.4 | 45.4 | 25.000 |
| 25 | 9.400 | 54.3 | 52.3 | 45.0 | 43.0 | 25.000 |
| 31.25 | 10.500 | 52.9 | 50.9 | 42.4 | 40.4 | 25.000 |

METRIC MEASUREMENT VERSION

10GX44 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable

| | | | | | | |
|------|--------|------|------|------|------|--------|
| 62.5 | 15.000 | 48.4 | 46.4 | 33.4 | 31.4 | 25.000 |
| 100 | 19.100 | 45.3 | 43.3 | 26.2 | 24.2 | 25.000 |
| 200 | 27.600 | 40.8 | 38.8 | 13.2 | 11.2 | 21.000 |
| 250 | 31.100 | 39.3 | 37.3 | 8.3 | 6.3 | 20.500 |
| 300 | 34.300 | 38.1 | 36.1 | 3.9 | 1.9 | 20.100 |
| 350 | 37.200 | 37.1 | 35.1 | N/A | N/A | 19.800 |
| 400 | 40.100 | 36.3 | 34.3 | N/A | N/A | 19.500 |
| 450 | 42.700 | 35.5 | 33.5 | N/A | N/A | 18.900 |
| 500 | 45.300 | 34.8 | 32.8 | N/A | N/A | 18.400 |
| 550 | 47.700 | 34.2 | 32.2 | N/A | N/A | 18.000 |
| 600 | 50.100 | 33.6 | 31.6 | N/A | N/A | 17.600 |
| 625 | 51.200 | 33.4 | 31.4 | N/A | N/A | 17.400 |
| 750 | 56.700 | 32.2 | 30.2 | N/A | N/A | 16.500 |
| 860 | 61.200 | 31.3 | 29.3 | N/A | N/A | 15.800 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ACRF (dB) | Min. PSACRF (dB) |
|-------------|------------------------------|------------------|----------------|------------------|
| 1 | 100 ± 15 | 100 ± 15 | 70.8 | 68.8 |
| 4 | 100 ± 15 | 100 ± 10.4 | 58.8 | 56.8 |
| 8 | 100 ± 15 | 100 ± 8 | 52.7 | 50.7 |
| 10 | 100 ± 15 | 100 ± 7.3 | 50.8 | 48.8 |
| 16 | 100 ± 15 | 100 ± 5 | 46.7 | 44.7 |
| 20 | 100 ± 15 | 100 ± 5 | 44.8 | 42.8 |
| 25 | 100 ± 15 | 100 ± 5 | 42.8 | 40.8 |
| 31.25 | 100 ± 15 | 100 ± 5 | 40.9 | 38.9 |
| 62.5 | 100 ± 15 | 100 ± 5 | 34.9 | 32.9 |
| 100 | 100 ± 15 | 100 ± 5 | 30.8 | 28.8 |
| 200 | 100 ± 22 | 100 ± 5 | 24.8 | 22.8 |
| 250 | 100 ± 32 | 100 ± 5 | 22.8 | 20.8 |
| 300 | 100 ± 32 | 100 ± 5 | 21.3 | 19.3 |
| 350 | 100 ± 32 | 100 ± 5 | 19.9 | 17.9 |
| 400 | 100 ± 32 | 100 ± 5 | 18.8 | 16.8 |
| 450 | 100 ± 32 | 100 ± 5 | 17.7 | 15.7 |
| 500 | 100 ± 32 | 100 ± 5 | 16.8 | 14.8 |
| 550 | 100 ± 32 | 100 ± 5 | 16.0 | 14.0 |
| 600 | 100 ± 32 | 100 ± 5 | 15.2 | 13.2 |
| 625 | 100 ± 32 | 100 ± 5 | 14.9 | 12.9 |
| 750 | | | 13.3 | 11.3 |
| 860 | | | 12.1 | 10.1 |

Premise Cable Electrical Table 4:

| Frequency (MHz) | Min. PSANEXT (dB) | Min. PSAACRF (dB) | Min. TCL (dB) | Min. ELTCTL (dB) |
|-----------------|-------------------|-------------------|---------------|------------------|
| 1.000 | 67.000 | 67.000 | 48.000 | 43.000 |
| 4.000 | 67.000 | 67.000 | 48.000 | 41.000 |
| 8.000 | 67.000 | 61.100 | 48.000 | 24.900 |
| 10.000 | 67.000 | 59.200 | 48.000 | 23.000 |
| 16.000 | 67.000 | 55.100 | 46.000 | 18.900 |
| 20.000 | 67.000 | 53.200 | 45.000 | 17.000 |
| 25.000 | 67.000 | 51.200 | 44.000 | 15.000 |
| 31.250 | 67.000 | 49.300 | 43.100 | |
| 62.500 | 66.600 | 43.300 | 40.000 | |
| 100.000 | 63.500 | 39.200 | 38.000 | |
| 200.000 | 59.000 | 33.200 | 35.000 | |
| 250.000 | 57.500 | 31.200 | 34.000 | |
| 300.000 | 56.300 | 29.700 | 33.200 | |
| 350.000 | 55.300 | 28.300 | 32.600 | |
| 400.000 | 54.500 | 27.200 | 32.000 | |
| 450.000 | 53.700 | 26.100 | 31.500 | |
| 500.000 | 53.000 | 25.200 | 31.000 | |
| 550.000 | 52.400 | 24.400 | | |
| 600.000 | 51.800 | 23.600 | | |
| 625.000 | 51.600 | 23.300 | | |
| 750.000 | 50.400 | 21.700 | | |
| 860.000 | 49.500 | 20.500 | | |

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party channel verified to TIA/EIA-568-C.2, Category 6A. Category 6A. 0.295" cable dimension per TIA 6@1 equivalent diameter. Values above 625MHz are for Engineering Information Only.

METRIC MEASUREMENT VERSION

10GX44 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------------|-------|----------------------------|
| 10GX44 0061000 | 1,000 FT | 34.000 LB | BLUE, LIGHT | | CAT6A 4PRB U/UTP LSZH REEL |
| 10GX44 0071000 | 1,000 FT | 34.000 LB | VIOLET | | CAT6A 4PRB U/UTP LSZH REEL |
| 10GX44 0091000 | 1,000 FT | 34.000 LB | WHITE | | CAT6A 4PRB U/UTP LSZH REEL |

Revision Number: 2 Revision Date: 02-27-2014

© 2017 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).