



Product: <u>3632</u> ☑

Category 6+ Premium Cable, 4 Bonded-Pairs, U/UTP, CMR

Product Description

Category 6+ Premium Premise Horizontal Cable (400MHz), 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 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE |
|------------------------|--|
| 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 | | | | | |
|-----------------|---|--|--|--|--|--|
| PO - Polyolefin | Polyolefin White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown | | | | | |
| Bonded-Pair: | Yes | | | | | |

Outer Jacket Material

| Separator Material | Material | Nom. Diameter | Ripcord |
|------------------------------------|--------------------------|---------------|---------|
| Center Member (Patented X-Spline®) | PVC - Polyvinyl Chloride | 0.234 in | Yes |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance | Nom. Mutual Capacitance |
|--------------------|--------------------|----------------------------|-------------------------|
| 77 Ohm/km | 3% | 90 pF/100m | 15.5 pF/ft |

Delay

| Frequency [MHz] | Max. Delay | Max. Delay Skew | Nom. Velocity of Propagation (VP) [%] | Typical Delay Skew |
|-----------------|---------------|-----------------|---------------------------------------|--------------------|
| 100 MHz | 537.6 ns/100m | 35 ns/100m | 70% | 30 ns/100m |

High Freq

| 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) | Max./Min. Fitted Impedance |
|--------------------|--------------------------------------|-------------------|---------------------|------------------|--------------------|----------------------------|--------------------------------|-------------------------------|---|-------------------------------|
| 1 MHz | 2.0 dB/100m | 84.3 dB | 82.3 dB | 80.3 dB | 80.3 dB | 76.8 dB | 73.8 dB | 20.0 dB | 100 ± 15 | |
| 4 MHz | 3.7 dB/100m | 75.3 dB | 73.3 dB | 69.5 dB | 69.5 dB | 64.8 dB | 61.8 dB | 23.6 dB | 100 ± 15 | 100 ± 12 Ohm |
| 8 MHz | 5.3 dB/100m | 70.8 dB | 68.8 dB | 63.5 dB | 63.5 dB | 58.7 dB | 55.7 dB | 25.3 dB | 100 ± 15 | 100 ± 10.4 Ohm |
| 10 MHz | 5.9 dB/100m | 69.3 dB | 67.3 dB | 61.4 dB | 61.4 dB | 56.8 dB | 53.8 dB | 26.0 dB | 100 ± 15 | 100 ± 8 Ohm |
| 16 MHz | 7.4 dB/100m | 66.2 dB | 64.2 dB | 56.8 dB | 56.8 dB | 52.7 dB | 49.7 dB | 26.0 dB | 100 ± 15 | 100 ± 7.3 Ohm |
| 20 MHz | 8.3 dB/100m | 64.8 dB | 62.8 dB | 54.4 dB | 54.4 dB | 50.8 dB | 47.8 dB | 26.0 dB | 100 ± 15 | 100 ± 5.7 Ohm |
| 25 MHz | 9.4 dB/100m | 63.3 dB | 61.3 dB | 52.0 dB | 52.0 dB | 48.8 dB | 45.8 dB | 25.5 dB | 100 ± 15 | 100 ± 5 Ohm |
| 31.25 MHz | 10.5 dB/100m | 61.9 dB | 59.9 dB | 49.4 dB | 49.4 dB | 46.9 dB | 43.9 dB | 25.0 dB | 100 ± 15 | 100 ± 5 Ohm |
| 62.5 MHz | 15.1 dB/100m | 57.4 dB | 55.4 dB | 40.3 dB | 40.3 dB | 40.9 dB | 37.9 dB | 23.5 dB | 100 ± 15 | 100 ± 5 Ohm |

| 100 MHz | 19.3 dB/100m | 54.3 dB | 52.3 dB | 33.0 dB | 33.0 dB | 36.8 dB | 33.8 dB | 22.5 dB | 100 ± 15 | 100 ± 5 Ohm |
|---------|--------------|---------|---------|---------|---------|---------|---------|---------|----------|-------------|
| 155 MHz | 24.5 dB/100m | 51.4 dB | 49.4 dB | 24.9 dB | 24.9 dB | 33.0 dB | 30.0 dB | 21.6 dB | 100 ± 22 | 100 ± 5 Ohm |
| 200 MHz | 28.2 dB/100m | 49.8 dB | 47.8 dB | 19.6 dB | 19.6 dB | 30.8 dB | 27.8 dB | 21.0 dB | 100 ± 22 | 100 ± 5 Ohm |
| 250 MHz | 31.8 dB/100m | 48.3 dB | 46.3 dB | 14.5 dB | 14.5 dB | 28.8 dB | 25.8 dB | 20.5 dB | 100 ± 32 | 100 ± 5 Ohm |
| 300 MHz | 35.2 dB/100m | 47.1 dB | 45.1 dB | 9.9 dB | 9.9 dB | 27.3 dB | 24.3 dB | 20.1 dB | 100 ± 32 | 100 ± 5 Ohm |
| 350 MHz | 38.4 dB/100m | 46.1 dB | 44.1 dB | 5.7 dB | 5.7 dB | 25.9 dB | 22.9 dB | 19.8 dB | 100 ± 32 | 100 ± 5 Ohm |
| 400 MHz | 41.5 dB/100m | 45.3 dB | 43.3 dB | 1.8 dB | 1.8 dB | 24.8 dB | 21.8 dB | 19.5 dB | 100 ± 32 | 100 ± 5 Ohm |
| 450 MHz | 44.3 dB/100m | 44.5 dB | 42.5 dB | | | 23.7 dB | 20.7 dB | 19.2 dB | 100 ± 32 | 100 ± 5 Ohm |
| 500 MHz | 47.1 dB/100m | 43.8 dB | 41.8 dB | | | 22.8 dB | 19.8 dB | 19.0 dB | 100 ± 32 | 100 ± 5 Ohm |
| 550 MHz | 49.7 dB/100m | 43.2 dB | 41.2 dB | | | 22.0 dB | 19.0 dB | 18.8 dB | 100 ± 32 | 100 ± 5 Ohm |
| 600 MHz | 52.3 dB/100m | 42.6 dB | 40.6 dB | | | 21.2 dB | 18.2 dB | 18.7 dB | 100 ± 32 | 100 ± 5 Ohm |
| 650 MHz | 54.8 dB/100m | 42.1 dB | 40.1 dB | | | 20.5 dB | 17.5 dB | 18.5 dB | 100 ± 32 | 100 ± 5 Ohm |

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CL3R)

Mechanical Characteristics

Temperature

| UL Rating. | Operating | Installation | Storage |
|------------|----------------|--------------|----------------|
| 90°C | -20°C To +75°C | 0°C To +50°C | -20°C To +75°C |

26 lbs/1000ft

Bend Radius

Bulk Cable Weight:

| | Stationary Min. | Installa | ition Min. |
|---|-------------------|----------|------------|
| | 0.5 in | 2.5 in | |
| I | Max. Pull Tension | n: | 40 lbs |

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;CMR-LP (0.5A);CL3R-LP (0.5A) | | | | | | |
| 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 6 | | | | | | |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 6 | | | | | | |
| Cenelec Compliance: | Segregation class according EN50174-2=a | | | | | | |
| 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) | | | | | | |

Part Number

Variants

| Item # | Color | Putup Type | Length | UPC |
|---------------|-------|-------------|----------|--------------|
| 3632 0101000 | Black | Reel | 1,000 ft | 612825146230 |
| 3632 010A1000 | Black | Reel-in-Box | 1,000 ft | 612825146223 |
| 3632 0061000 | Blue | Reel | 1,000 ft | 612825146155 |
| 3632 006A1000 | Blue | Reel-in-Box | 1,000 ft | 612825146131 |
| 3632 006U1000 | Blue | UnReel | 1,000 ft | 612825146148 |
| 3632 0081000 | Gray | Reel | 1,000 ft | 612825146186 |
| 3632 008A1000 | Gray | Reel-in-Box | 1,000 ft | 612825146162 |
| 3632 008U1000 | Gray | UnReel | 1,000 ft | 612825146179 |
| 3632 0051000 | Green | Reel | 1,000 ft | 612825146124 |

| 3632 005A1000 | Green | Reel-in-Box | 1,000 ft | 612825146117 |
|---------------|--------|-------------|----------|--------------|
| 3632 003A1000 | Orange | Reel-in-Box | 1,000 ft | 612825146087 |
| 3632 0091000 | White | Reel | 1,000 ft | 612825146216 |
| 3632 009A1000 | White | Reel-in-Box | 1,000 ft | 612825146193 |
| 3632 009U1000 | White | UnReel | 1,000 ft | 612825146209 |
| 3632 0041000 | Yellow | Reel | 1,000 ft | 612825146100 |
| 3632 004A1000 | Yellow | Reel-in-Box | 1,000 ft | 612825146094 |

Product Notes

| Notes: Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 400 Information Only. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. | MHz are for Engineering |
|---|-------------------------|
|---|-------------------------|

History

| Update and Revision: | Revision Number: 0.418 Revision Date: 09-30-2020 | |
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