



Product: [1533R](#)

Category 5e Cable, 4 Pair, F/UTP, CMR

Product Description

Category 5e Premise Horizontal Cable (100MHz), 4 Pair, 24 AWG Solid Bare Copper Conductors, F/UTP - Foil Shielded, 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, 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 |
|-----|-----------|------------------|-----------------|
| 24 | Solid | BC - Bare Copper | 4 |

Insulation

| Material | Color Code |
|-----------------|--|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Green Stripe & Green, White/Orange Stripe & Orange, White/Brown Stripe & Brown |

Bonded-Pair: No

Outer Shield Material

| Type | Material | Coverage | Drainwire Type |
|------|-------------------------------------|----------|------------------|
| Tape | Polyester + Bi-Laminate (Alum+Poly) | 100% | 24 AWG (7x32) TC |

Outer Jacket Material

| Material | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.260 in | No |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance | Nom. Mutual Capacitance |
|--------------------|--------------------|----------------------------|-------------------------|
| 93.8 Ohm/km | 5.0% | 330 pF/100m | 15 pF/ft |

Delay

| Frequency [MHz] | Max. Delay | Max. Delay Skew |
|-----------------|---------------|-----------------|
| 100 MHz | 537.6 ns/100m | 45 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 | 65.3 dB | 62.3 dB | 63.3 dB | 60.3 dB | 63.8 dB | 60.8 dB | 20.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 4 MHz | 4.1 dB/100m | 56.3 dB | 53.3 dB | 52.2 dB | 49.2 dB | 51.8 dB | 48.8 dB | 23.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 8 MHz | 5.8 dB/100m | 51.8 dB | 48.8 dB | 46.0 dB | 43.0 dB | 45.7 dB | 42.7 dB | 24.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 10 MHz | 6.5 dB/100m | 50.3 dB | 47.3 dB | 43.8 dB | 40.8 dB | 43.8 dB | 40.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 16 MHz | 8.2 dB/100m | 47.2 dB | 44.2 dB | 39.0 dB | 36.0 dB | 39.7 dB | 36.7 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 20 MHz | 9.3 dB/100m | 45.8 dB | 42.8 dB | 36.5 dB | 33.5 dB | 37.8 dB | 34.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |

| | | | | | | | | | | |
|-----------|--------------|---------|---------|---------|---------|---------|---------|---------|--------------|--------------|
| 25 MHz | 10.4 dB/100m | 44.3 dB | 41.3 dB | 33.9 dB | 30.9 dB | 35.8 dB | 32.8 dB | 24.3 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 31.25 MHz | 11.7 dB/100m | 42.9 dB | 39.9 dB | 31.2 dB | 28.2 dB | 33.9 dB | 30.9 dB | 23.6 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 62.5 MHz | 17.0 dB/100m | 38.4 dB | 35.4 dB | 21.4 dB | 18.4 dB | 27.9 dB | 24.9 dB | 21.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 100 MHz | 22.0 dB/100m | 35.3 dB | 32.3 dB | 13.3 dB | 10.3 dB | 23.8 dB | 20.8 dB | 20.1 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 155 MHz | 28.1 dB/100m | 32.4 dB | 29.4 dB | 4.4 dB | 1.4 dB | 20.0 dB | 17.0 dB | 18.8 dB | | |
| 200 MHz | 32.4 dB/100m | 30.8 dB | 27.8 dB | | | 17.8 dB | 14.8 dB | 18.0 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. |
|-----------------|-------------------|
| 1.0 in | 2.25 in |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 25 lbs |
| Bulk Cable Weight: | 30 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-90-661-2012 |
| IEEE Compliance: | IEEE 802.3bt Type 1, Type 2, Type 3 |
| NEMA Compliance: | NEMA WC-63.1 |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 5e |
| 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

| | |
|----------------|-------|
| Plenum Number: | 1533P |
|----------------|-------|

Variants

| Item # | Color | Putup Type | Length | UPC |
|----------------|--------|-------------|----------|--------------|
| 1533R 0101000 | Black | Reel | 1,000 ft | 612825117582 |
| 1533R 010A1000 | Black | Reel-in-Box | 1,000 ft | 612825117575 |
| 1533R 0061000 | Blue | Reel | 1,000 ft | 612825117568 |
| 1533R 006A1000 | Blue | Reel-in-Box | 1,000 ft | 612825117551 |
| 1533R F2V1000 | Gray | Reel | 1,000 ft | 612825117452 |
| 1533R F2VA1000 | Gray | Reel-in-Box | 1,000 ft | 612825117445 |
| 1533R F2V1640 | Gray | Reel | 1,640 ft | 612825117469 |
| 1533R 0051000 | Green | Reel | 1,000 ft | 612825117544 |
| 1533R 005A1000 | Green | Reel-in-Box | 1,000 ft | 612825117537 |
| 1533R 0031000 | Orange | Reel | 1,000 ft | 612825117506 |
| 1533R 003A1000 | Orange | Reel-in-Box | 1,000 ft | 612825117490 |
| 1533R 0021000 | Red | Reel | 1,000 ft | 612825117483 |
| 1533R 002A1000 | Red | Reel-in-Box | 1,000 ft | 612825117476 |
| 1533R 0041000 | Yellow | Reel | 1,000 ft | 612825117520 |
| 1533R 004A1000 | Yellow | Reel-in-Box | 1,000 ft | 612825117513 |

Product Notes

Notes: Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 100 MHz are for Engineering Information Only. Shield is Bonded to Jacket Inner Wall for Electrical Stability. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0.

History

Update and Revision: Revision Number: 0.391 Revision Date: 08-25-2020

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