



Product: <u>1533P</u> ☑

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

Product Description

Category 5e Premise Horizontal Cable (100MHz), 4 Pair, 24 AWG Solid Bare Copper Conductors, F/UTP - Foil Shielded, Plenum-CMP, Flamarrest® PVC-LS Jacket

Technical Specifications

Product Overview

Suitable Applications: Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE

Construction Details

Conductor

| Size | Stranding | Material | No. of Pairs |
|--------|-----------|------------------|--------------|
| 24 AWG | Solid | BC - Bare Copper | 4 |

Insulation

| Material | Color Code |
|--------------------------------------|--|
| FEP - Fluorinated Ethylene Propylene | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

Outer Shield

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

Outer Jacket

| Material | Material Trade Name | Nom. Diameter | Ripcord |
|-----------------------------------|---------------------|--------------------|---------|
| PVC - Polyvinyl Chloride | Flamarrest® | 0.235 in (5.97 mm) | No |
| Overall Cable Diameter (Nominal): | 0.235 in (5.97 mm) | | |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 330 pF/100m |

Delay

| Frequency | Max. Delay | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz | 537.6 ns/100m | 45 ns/100m | 70% |

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 (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] |
|--------------------|--------------------------------------|----------------------|------------------------|---------------------|-----------------------|----------------------------|--------------------------------|----------------------------------|--|-------------------------------------|
| 1 | 2.0 dB/100m | 65.3 | 62.3 | 63.3 | 60.3 | 63.8 | 60.8 | 20.0 | 100 ± 15 | 100 ± 15 |
| 4 | 4.1 dB/100m | 56.3 | 53.3 | 52.2 | 49.2 | 51.8 | 48.8 | 23.0 | 100 ± 15 | 100 ± 15 |
| 8 | 5.8 dB/100m | 51.8 | 48.8 | 46.0 | 43.0 | 45.7 | 42.7 | 24.5 | 100 ± 15 | 100 ± 15 |
| 10 | 6.5 dB/100m | 50.3 | 47.3 | 43.8 | 40.8 | 43.8 | 40.8 | 25.0 | 100 ± 15 | 100 ± 15 |
| 16 | 8.2 dB/100m | 47.2 | 44.2 | 39.0 | 36.0 | 39.7 | 36.7 | 25.0 | 100 ± 15 | 100 ± 15 |

| 20 | 9.3 dB/100m | 45.8 | 42.8 | 36.5 | 33.5 | 37.8 | 34.8 | 25.0 | 100 ± 15 | 100 ± 15 |
|-------|--------------|------|------|------|------|------|------|------|----------|----------|
| 25 | 10.4 dB/100m | 44.3 | 41.3 | 33.9 | 30.9 | 35.8 | 32.8 | 24.3 | 100 ± 15 | 100 ± 15 |
| 31.25 | 11.7 dB/100m | 42.9 | 39.9 | 31.2 | 28.2 | 33.9 | 30.9 | 23.6 | 100 ± 15 | 100 ± 15 |
| 62.5 | 17.0 dB/100m | 38.4 | 35.4 | 21.4 | 18.4 | 27.9 | 24.9 | 21.5 | 100 ± 15 | 100 ± 15 |
| 100 | 22.0 dB/100m | 35.3 | 32.3 | 13.3 | 10.3 | 23.8 | 20.8 | 20.1 | 100 ± 15 | 100 ± 15 |
| 155 | 28.1 dB/100m | 32.4 | 29.4 | 4.4 | 1.4 | 20.0 | 17.0 | 18.8 | | |
| 200 | 32.4 dB/100m | 30.8 | 27.8 | | | 17.8 | 14.8 | 18.0 | | |

Voltage

UL Voltage Rating 300 V (CMP)

Mechanical Characteristics

Temperature

| UL Temperature | 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.
2.0 in (51 mm) 2.5 in (64 mm)

Max. Pull Tension: 25 lbs (11 kg)

Bulk Cable Weight: 32 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 |
| CEC / C(UL) Compliance: | CMP |
| ICEA Compliance: | S-90-661 |
| 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 |
| Third Party Performance Verification: | Category 5e |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61156-5 |
| 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: | 1533R |
| | |

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 Markings from Max. Put-Up Length to 0.

History

Update and Revision: Revision Number: 0.556 Revision Date: 04-29-2024

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|----------------|-------|-------------|----------|--------------|----------|
| 1533P 0101000 | Black | Reel | 1,000 ft | 612825117414 | С |
| 1533P 010A1000 | Black | Reel-in-Box | 1,000 ft | 612825117407 | |
| 1533P D151000 | Blue | Reel | 1,000 ft | 612825117292 | С |
| 1533P D15A1000 | Blue | Reel-in-Box | 1,000 ft | 612825117285 | |
| 1533P 0081000 | Gray | Reel | 1,000 ft | 612825117391 | С |

| 1533P 008A1000 | Gray | Reel-in-Box | 1,000 ft | 612825117384 | |
|----------------|---------|-------------|----------|--------------|---|
| 1533P 0051000 | Green | Reel | 1,000 ft | 612825117377 | С |
| 1533P 005A1000 | Green | Reel-in-Box | 1,000 ft | 612825117360 | |
| 1533P 8771000 | Natural | Reel | 1,000 ft | 612825117438 | С |
| 1533P 877A1000 | Natural | Reel-in-Box | 1,000 ft | 612825117421 | |
| 1533P 0031000 | Orange | Reel | 1,000 ft | 612825117339 | С |
| 1533P 003A1000 | Orange | Reel-in-Box | 1,000 ft | 612825117322 | |
| 1533P 0021000 | Red | Reel | 1,000 ft | 612825117315 | С |
| 1533P 002A1000 | Red | Reel-in-Box | 1,000 ft | 612825117308 | |
| 1533P 0041000 | Yellow | Reel | 1,000 ft | 612825117353 | С |
| 1533P 004A1000 | Yellow | Reel-in-Box | 1,000 ft | 612825117346 | |

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