




Product: [1594A](#) 

Category 5e Indoor/Outdoor Cable, 4 Pair, U/UTP, CMR/CMX

Product Description

Category 5e Premise Horizontal Cable (200MHz), Indoor/Outdoor, 4-Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR/CMX Outdoor, UV Resistant PVC Jacket

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Indoor/Outdoor, Premise Horizontal Cable, Ethernet 1000BASE-T, PoE++, PoE+, PoE |
|------------------------|---|

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/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

| | |
|--------------|----|
| Bonded-Pair: | No |
|--------------|----|

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.220 in | Yes |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance | Nom. Mutual Capacitance |
|--------------------|--------------------|----------------------------|-------------------------|
| 93.8 Ohm/km | 3% | 330 pF/100m | 15 pF/ft |

Delay

| Frequency [MHz] | Max. Delay | Max. Delay Skew | Nom. Velocity of Propagation (VP) [%] |
|-----------------|---------------|-----------------|---------------------------------------|
| 100 MHz | 537.6 ns/100m | 45 ns/100m | 68% |

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) | 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 | 51.7 dB | 48.7 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 | 47.3 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 | 37.7 dB | 34.7 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 | 27.8 dB | 24.8 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 | 32.5 dB | 29.4 dB | 4.4 dB | 1.4 dB | 19.9 dB | 16.9 dB | 15.8 dB | 100 ± 25 Ohm | 100 ± 15 Ohm |
| 200 MHz | 32.4 dB/100m | 30.8 dB | 27.8 dB | | | 17.7 dB | 14.7 dB | 15.0 dB | 100 ± 25 Ohm | 100 ± 15 Ohm |

Voltage

| UL Voltage Rating |
|----------------------------------|
| 300 V (CMR), 300 V (CMX-Outdoor) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating | Installation | Storage |
|----------------|----------------|----------------|----------------|
| 90°C | -40°C To +75°C | -25°C To +75°C | -40°C To +75°C |

Bend Radius

| Installation Min. |
|-------------------|
| 2.25 in |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 25 lbs |
| Bulk Cable Weight: | 23 lbs/1000ft |

Standards and Compliance

| | |
|---------------------------------|---|
| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance |
| Sustainability: | Product Lens™, Environmental Product Declaration (EPD) Available |
| Flammability / Fire Resistance: | UL 1666 Riser, FT4, FT4, IEC 60332-1-2 |
| NEC / UL Compliance: | Article 800, CMR;CMX-Outdoor |
| CEC / C(UL) Compliance: | CMX-Outdoor |
| ICEA Compliance: | S-90-661-2012, S-56-434, S-99-689, S-100-685 |
| 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 |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61156-5 |
| CPR Euroclass: | Eca |
| 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 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Part Number

| | |
|--------------------|-------|
| Plenum Number: | 1585A |
| Non-Plenum Number: | 1583A |

Variants

| Item # | Color | Putup Type | Length | UPC |
|----------------|-------|------------|----------|--------------|
| 1594A 008U1000 | Gray | UnReel | 1,000 ft | 612825118756 |
| 1594A 1GFU1000 | Ivory | UnReel | 1,000 ft | 612825118770 |
| 1594A 009U1000 | White | UnReel | 1,000 ft | 612825118763 |

Product Notes

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| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. |
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History

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|----------------------|--|
| Update and Revision: | Revision Number: 0.403 Revision Date: 10-13-2021 |
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