



Product: [1583A](#)

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

Product Description

Category 5e Premise Horizontal Cable (200MHz), 4 Pair, 24 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 |
|-----|-----------|------------------|-----------------|
| 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

| Material | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.190 in | Yes |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. DCR Unbalanced Between Pairs [%] | Max. Capacitance Unbalance | Nom. Mutual Capacitance |
|--------------------|--------------------|---------------------------------------|----------------------------|-------------------------|
| 93.8 Ohm/km | 5% | 5% | 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 | 70% |

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 | | |

Table Notes: Third party verified to TIA/EIA-568-B.2, Category 5E

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 | 2.0 in |

Max. Pull Tension: 25 lbs

Bulk Cable Weight: 18 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: | Article 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: 1585A

Variants

| Item # | Color | Putup Type | Length | UPC/EAN |
|----------------|-------|------------|----------|--------------|
| 1583A 006Z1000 | | | | 612825432197 |
| 1583A 006Z1000 | | | | 612825432197 |
| 1583A 010Z1000 | | | | 612825432272 |
| 1583A 010Z1000 | | | | 612825432272 |
| 1583A 0061100 | | | | |
| 1583A 0081003 | | | | 612825118039 |
| ND0481 0041000 | | | | |
| 1583A.05305 | Black | | | |
| 1583A 0101000 | Black | Reel | 305 m | 612825317661 |
| 1583A 010U1000 | Black | UnReel | 305 m | 612825118145 |
| 1583A 0101000 | Black | Reel | 1,000 ft | 612825317661 |
| 1583A 0101000 | Black | Reel | 1,000 ft | 612825317661 |
| 1583A 010U1000 | Black | UnReel | 1,000 ft | 612825118145 |
| 1583A 010U1000 | Black | UnReel | 1,000 ft | 612825118145 |
| 1583A.01305 | Blue | | | |
| 1583A.01U305 | Blue | | | |
| 1583A 0061000 | Blue | Reel | 1,000 ft | 612825117940 |
| 1583A 0061000 | Blue | Reel | 1,000 ft | 612825117940 |

| | | | | |
|----------------|------------------|--------|----------|---------------|
| 1583A 006U1000 | Blue | UnReel | 1,000 ft | 612825117926 |
| 1583A 006U1000 | Blue | UnReel | 1,000 ft | 612825117926 |
| 1583A 006U1000 | Blue | Unreel | 1,000 ft | |
| 1583A 0061640 | Blue | Reel | 1,640 ft | 612825117964 |
| 1583A 0061640 | Blue | Reel | 1,640 ft | 612825117964 |
| 1583A 0063000 | Blue | Reel | 3,000 ft | 612825117988 |
| 1583A 0063000 | Blue | Reel | 3,000 ft | 612825117988 |
| 1583A 0061000 | Blue, Light | Reel | 305 m | 612825117940 |
| 1583A 006U1000 | Blue, Light | UnReel | 305 m | 612825117926 |
| 1583A 0061640 | Blue, Light | Reel | 500 m | 612825117964 |
| 1583A 0063000 | Blue, Light | Reel | 914 m | 612825117988 |
| 1583A 0081000 | Gray | Reel | 305 m | 612825118022 |
| 1583A 008U1000 | Gray | UnReel | 305 m | 612825118008 |
| 1583A 0081640 | Gray | Reel | 500 m | 612825118046 |
| 1583A 0083000 | Gray | Reel | 914 m | 612825118060 |
| 1583A 0081000 | Gray | Reel | 1,000 ft | 612825118022 |
| 1583A 0081000 | Gray | Reel | 1,000 ft | 612825118022 |
| 1583A 008U1000 | Gray | UnReel | 1,000 ft | 612825118008 |
| 1583A 008U1000 | Gray | UnReel | 1,000 ft | 612825118008 |
| 1583A 0081640 | Gray | Reel | 1,640 ft | 612825118046 |
| 1583A 0081640 | Gray | Reel | 1,640 ft | 612825118046 |
| 1583A 0083000 | Gray | Reel | 3,000 ft | 612825118060 |
| 1583A 0083000 | Gray | Reel | 3,000 ft | 612825118060 |
| 1583A.00305 | Gray, Dark Pearl | Reel | 305 m | 8719605001900 |
| 1583A.00U305 | Gray, Dark Pearl | UnReel | 305 m | 8719605001917 |
| 1583A.03305 | Green | | | |
| 1583A.03U305 | Green | | | |
| 1583A 0051000 | Green | Reel | 1,000 ft | 612825117902 |
| 1583A 0051000 | Green | Reel | 1,000 ft | 612825117902 |
| 1583A 005U1000 | Green | UnReel | 1,000 ft | 612825317654 |
| 1583A 005U1000 | Green | UnReel | 1,000 ft | 612825317654 |
| 1583A 005U1000 | Green | Unreel | 1,000 ft | |
| 1583A 0051000 | Green, Dark | Reel | 305 m | 612825117902 |
| 1583A 005U1000 | Green, Dark | UnReel | 305 m | 612825317654 |
| 1583A 008U1000 | Grey | Unreel | 1,000 ft | |
| 1583A 0031000 | Orange | Reel | 305 m | 612825117834 |
| 1583A 003U1000 | Orange | UnReel | 305 m | 612825117810 |
| 1583A 0031000 | Orange | Reel | 1,000 ft | 612825117834 |
| 1583A 0031000 | Orange | Reel | 1,000 ft | 612825117834 |
| 1583A 003U1000 | Orange | UnReel | 1,000 ft | 612825117810 |
| 1583A 003U1000 | Orange | UnReel | 1,000 ft | 612825117810 |
| 1583A.02305 | Orange, RAL 2003 | | | |
| 1583A.06305 | Pink | | | |
| 1583A 0121000 | Pink | Reel | 305 m | 612825118176 |
| 1583A 012U1000 | Pink | UnReel | 305 m | 612825118152 |
| 1583A 0121000 | Pink | Reel | 1,000 ft | 612825118176 |
| 1583A 0121000 | Pink | Reel | 1,000 ft | 612825118176 |
| 1583A 012U1000 | Pink | UnReel | 1,000 ft | 612825118152 |
| 1583A 012U1000 | Pink | UnReel | 1,000 ft | 612825118152 |
| 1583A 0021000 | Red | Reel | 305 m | 612825317647 |
| 1583A 002U1000 | Red | UnReel | 305 m | 612825117780 |
| 1583A 0021000 | Red | Reel | 1,000 ft | 612825317647 |
| 1583A 002U1000 | Red | UnReel | 1,000 ft | 612825117780 |
| 1583A 002U1000 | Red | UnReel | 1,000 ft | 612825117780 |
| 1583A 0021000 | Red | Reel | 1,000 ft | 612825317647 |
| 1583A 002U1000 | Red | Unreel | 1,000 ft | |
| 1583A.07305 | Red, RAL 3000 | | | |
| 1583A.07U305 | Red, RAL 3000 | | | |
| 1583A.04305 | White | | | |
| 1583A 0091000 | White | Reel | 305 m | 612825118107 |
| 1583A 009U1000 | White | UnReel | 305 m | 612825118084 |

| | | | | |
|----------------|------------------|--------|----------|--------------|
| 1583A 0093000 | White | Reel | 914 m | 612825118121 |
| 1583A 0091000 | White | Reel | 1,000 ft | 612825118107 |
| 1583A 0091000 | White | Reel | 1,000 ft | 612825118107 |
| 1583A 009U1000 | White | UnReel | 1,000 ft | 612825118084 |
| 1583A 009U1000 | White | UnReel | 1,000 ft | 612825118084 |
| 1583A 0093000 | White | Reel | 3,000 ft | 612825118121 |
| 1583A 0093000 | White | Reel | 3,000 ft | 612825118121 |
| 1583A 0041000 | Yellow | Reel | 305 m | 612825117872 |
| 1583A 004U1000 | Yellow | UnReel | 305 m | 612825117858 |
| 1583A 0041000 | Yellow | Reel | 1,000 ft | 612825117872 |
| 1583A 0041000 | Yellow | Reel | 1,000 ft | 612825117872 |
| 1583A 004U1000 | Yellow | UnReel | 1,000 ft | 612825117858 |
| 1583A 004U1000 | Yellow | UnReel | 1,000 ft | 612825117858 |
| 1583A.13305 | Yellow, RAL 1021 | | | |

Product Notes

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| 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. Print Includes Descending Footage Markings from Max. Put-Up Length to 0. |
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History

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| Update and Revision: | Revision Number: 0.459 Revision Date: 02-16-2021 |
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