



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: | 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

| | |
|--------|--|
| 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. |
|--------|--|

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.458 Revision Date: 10-09-2020 |
|----------------------|--|

© 2021 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.