

1583A Multi-Conductor - Category 5e Nonbonded-Pair Cable



For more Information
please call

1-800-Belden1



General Description:

CAT5e (200MHz), 4-Pair, U/UTP-Unshielded, Riser-CMR, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Ripcord, PVC Jacket.

Usage (Overall)

Suitable Applications: Horizontal, 1000BaseT, Gigabit Ethernet, POE, POE+, 100BaseTX, Fast Ethernet, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Video, RS-422

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4 | 24 | Solid | BC - Bare Copper |

Total Number of Conductors: 8

Insulation

Insulation Material:

| Insulation Material |
|---------------------|
| PO - Polyolefin |

Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.190 |

Outer Jacket Ripcord: Yes

Pair

Pair Color Code Chart:

| Number | Color |
|--------|------------------------------|
| 1 | White/Blue Stripe & Blue |
| 2 | White/Orange Stripe & Orange |
| 3 | White/Green Stripe & Green |
| 4 | White/Brown Stripe & Brown |

Mechanical Characteristics (Overall)

Storage Temperature Range: -20°C To +75°C

Installation Temperature Range: 0°C To +60°C

Operating Temperature Range: -20°C To +60°C

Bulk Cable Weight: 18 lbs/1000 ft.

Max. Recommended Pulling Tension: 35 lbs.

Min. Bend Radius/Minor Axis: 0.800 in.

Min. Bend/Installation: 1.900 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

NEC Articles: 800

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| | |
|---------------------------------------|-------------------------------------|
| CEC/C(UL) Specification: | CMR |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| Other Standards: | ISO/IEC 11801 ed 2.1 (2008) Class D |
| EU CE Mark: | Yes |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| Telecommunications Standards: | Category 5e - TIA 568.C.2 |
| Other Specification: | NEMA WC-63.1 Category 5e |

Applicable Patents:

| |
|------------------|
| Country |
| www.belden.com/p |

Flame Test

| | |
|-------------------|-----------------------|
| UL Flame Test: | UL1666 Vertical Riser |
| C(UL) Flame Test: | FT4 |
| CSA Flame Test: | FT4 |
| IEEE Flame Test: | 1202 |

Suitability

| | |
|------------------------|-----|
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | No |
| Suitability - Aerial: | No |
| Suitability - Burial: | No |
| Sunlight Resistance: | No |
| Oil Resistance: | No |
| Non-halogenated: | No |

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

| |
|---------------------|
| Capacitance (pF/ft) |
| 15 |

| | |
|---|-----|
| Maximum Capacitance Unbalance (pF/100 m): | 330 |
|---|-----|

Nominal Velocity of Propagation:

| |
|--------|
| VP (%) |
| 70 |

Maximum Delay:

| |
|------------------|
| Delay (ns/100 m) |
| 538 @ 100MHz |

Max. Delay Skew:

| |
|-----------------------|
| Delay Skew (ns/100 m) |
| 45 |

Maximum Conductor DC Resistance:

| |
|------------------------|
| DCR @ 20°C (Ohm/100 m) |
| 9.38 |

Max. Operating Voltage - UL:

| |
|-----------|
| Voltage |
| 300 V RMS |

Maximum DCR Unbalanced:

| |
|--------------------------|
| DCR Unbalance @ 20°C (%) |
|--------------------------|

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3

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) | Min RL (dB) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|
| 1 | 2.000 | 65.3 | 62.3 | 63.0 | 60.3 | 20.000 |
| 4 | 4.100 | 56.3 | 53.3 | 51.0 | 49.2 | 23.000 |
| 8 | 5.800 | 51.8 | 48.8 | 46.0 | 43.0 | 24.500 |
| 10 | 6.500 | 50.3 | 47.3 | 43.0 | 40.8 | 25.000 |
| 16 | 8.200 | 47.3 | 44.3 | 39.0 | 36.0 | 25.000 |
| 20 | 9.300 | 45.8 | 42.8 | 36.5 | 33.5 | 25.000 |
| 25 | 10.400 | 44.3 | 41.3 | 33.9 | 30.9 | 24.300 |
| 31.25 | 11.700 | 42.9 | 39.9 | 31.0 | 28.2 | 23.600 |
| 62.5 | 17.000 | 38.4 | 35.4 | 22.0 | 19.0 | 21.500 |
| 100 | 22.000 | 35.3 | 32.3 | 14.0 | 10.3 | 20.100 |
| 155 | 28.100 | 32.5 | 29.5 | 4.4 | 1.4 | 15.800 |
| 200 | 32.400 | 30.8 | 27.8 | 4.0 | 1.0 | 15.000 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|--------------------|
| 1 | 100 ± 15 | 63.8 | 60.8 |
| 4 | 100 ± 15 | 51.7 | 48.7 |
| 8 | 100 ± 15 | 45.7 | 42.7 |
| 10 | 100 ± 15 | 43.8 | 40.8 |
| 16 | 100 ± 15 | 39.7 | 36.7 |
| 20 | 100 ± 15 | 37.7 | 34.7 |
| 25 | 100 ± 15 | 35.8 | 32.8 |
| 31.25 | 100 ± 15 | 33.9 | 30.9 |
| 62.5 | 100 ± 15 | 27.8 | 24.9 |
| 100 | 100 ± 15 | 23.8 | 20.8 |
| 155 | 100 ± 25 | 19.9 | 16.9 |
| 200 | 100 ± 25 | 17.7 | 14.7 |

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 5e. Values above 100 MHz are for engineering purposes only.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------------|-------|--------------------------|
| 1583A 002U1000 | 1,000 FT | 24.000 LB | RED | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0021000 | 1,000 FT | 5.000 LB | RED | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 003U1000 | 1,000 FT | 24.000 LB | ORANGE | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0031000 | 1,000 FT | 20.000 LB | ORANGE | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 004U1000 | 1,000 FT | 24.000 LB | YELLOW | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0041000 | 1,000 FT | 20.000 LB | YELLOW | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 005U1000 | 1,000 FT | 24.000 LB | GREEN, DARK | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0051000 | 1,000 FT | 20.000 LB | GREEN, DARK | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 006U1000 | 1,000 FT | 20.000 LB | BLUE, LIGHT | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0061000 | 1,000 FT | 20.000 LB | BLUE, LIGHT | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 0061640 | 1,640 FT | 34.440 LB | BLUE, LIGHT | | CAT5E 4PR U/UTP CMR REEL |
| 1583A 0063000 | 3,000 FT | 60.000 LB | BLUE, LIGHT | | CAT5E 4PR U/UTP CMR REEL |
| 1583A 008U1000 | 1,000 FT | 20.000 LB | GRAY | C | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0081000 | 1,000 FT | 20.000 LB | GRAY | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 0081640 | 1,640 FT | 34.440 LB | GRAY | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 0083000 | 3,000 FT | 60.000 LB | GRAY | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 009U1000 | 1,000 FT | 24.000 LB | WHITE | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0091000 | 1,000 FT | 20.000 LB | WHITE | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 0093000 | 3,000 FT | 60.000 LB | WHITE | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 010U1000 | 1,000 FT | 24.000 LB | BLACK | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0101000 | 1,000 FT | 20.000 LB | BLACK | C | CAT5E 4PR U/UTP CMR REEL |
| 1583A 012U1000 | 1,000 FT | 24.000 LB | PINK | | CAT5E 4PR U/UTP CMR BOX |
| 1583A 0121000 | 1,000 FT | 20.000 LB | PINK | C | CAT5E 4PR U/UTP CMR REEL |

Notes:
C = CRATE REEL PUT-UP.

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