

## 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)

|  |                 |
|--|-----------------|
| <b>Storage Temperature Range:</b>        | -20°C To +75°C  |
| <b>Installation Temperature Range:</b>   | 0°C To +60°C    |
| <b>Operating Temperature Range:</b>      | -20°C To +60°C  |
| <b>Bulk Cable Weight:</b>                | 18 lbs/1000 ft. |
| <b>Max. Recommended Pulling Tension:</b> | 35 lbs.         |
| <b>Min. Bend Radius/Minor Axis:</b>      | 0.800 in.       |
| <b>Min. Bend/Installation:</b>           | 1.900 in.       |

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|                                |     |
|--------------------------------|-----|
| <b>NEC/(UL) Specification:</b> | CMR |
| <b>NEC Articles:</b>           | 800 |

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

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| 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 (%) |
|--------------------------|

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

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### 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.

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

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