

## 1213 Multi-Conductor - Enhanced Category 5E Nonbonded-Pair Cable



For more Information  
please call

1-800-Belden1



### General Description:

CAT5e+ (350MHz), 4-Pair, U/UTP-Unshielded, Plenum-CMP, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, Dual FRPO/FEP Insulation, Ripcord, Flamarrest® Jacket

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 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  |
|--|
| FRPO/FEP - Flame Retardant Polyolefin/Fluorinated Ethylene Propylene |

#### Outer Shield

Outer Shield Material:

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

#### Outer Jacket

Outer Jacket Material:

| Outer Jacket Trade Name | Outer Jacket Material                 |
|-------------------------|---------------------------------------|
| Flamarrest®             | LS PVC - Low Smoke Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.205           |

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Nominal Diameter:** 0.205 in.

#### 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>Installation Temperature Range:</b>   | +5°C To +50°C   |
| <b>Operating Temperature Range:</b>      | -20°C To +75°C  |
| <b>Bulk Cable Weight:</b>                | 24 lbs/1000 ft. |
| <b>Max. Recommended Pulling Tension:</b> | 35 lbs.         |
| <b>Min. Bend Radius/Minor Axis:</b>      | 0.750 in.       |
| <b>Min. Bend/Installation:</b>           | 2 in.           |

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

**NEC(UL) Specification:** CMP

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|                                       |                           |
|---------------------------------------|---------------------------|
| NEC Articles:                         | 800                       |
| CEC/C(UL) Specification:              | CMP                       |
| EU Directive 2011/65/EU (ROHS II):    | Yes                       |
| 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): | 01/01/2005                |
| 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:    | NFPA 262 Plenum Flame Test (UL910)(FT6) |
| C(UL) Flame Test: | FT6                                     |
| CSA Flame Test:   | FT6                                     |

### 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):      | Yes  |
| Non-Plenum Number: | 1212 |

## Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)

15

Maximum Capacitance Unbalance (pF/100 m): 330

Nominal Velocity of Propagation:

VP (%)

72.000

Maximum Delay:

Delay (ns/100 m)

510

Max. Delay Skew:

Delay Skew (ns/100 m)

25

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

8.900

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3

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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                       | 70.3           | 69.3             | 68.3          | 67.3            | 20.000      |
| 4           | 4.000                       | 61.3           | 60.3             | 57.3          | 56.3            | 23.000      |
| 8           | 5.700                       | 56.8           | 55.8             | 51.1          | 50.1            | 24.500      |
| 10          | 6.400                       | 55.3           | 54.3             | 48.9          | 47.9            | 25.000      |
| 16          | 8.100                       | 52.2           | 51.2             | 44.1          | 43.1            | 25.000      |
| 20          | 9.100                       | 50.8           | 49.8             | 41.7          | 40.7            | 25.000      |
| 25          | 10.200                      | 49.3           | 48.3             | 39.1          | 38.1            | 24.300      |
| 31.25       | 11.400                      | 47.9           | 46.9             | 36.4          | 35.4            | 23.600      |
| 62.5        | 16.700                      | 43.4           | 42.4             | 27.0          | 26.0            | 21.500      |
| 100         | 21.000                      | 40.3           | 39.3             | 19.3          | 18.3            | 20.100      |
| 155         | 26.600                      | 37.4           | 36.4             | 10.9          | 9.9             | 18.800      |
| 200         | 30.500                      | 35.8           | 34.8             | 5.3           | 4.3             | 18.000      |
| 250         | 34.400                      | 34.3           | 33.3             | -0.1          | -1.1            | 17.300      |
| 300         | 38.000                      | 33.1           | 32.1             |               |                 | 14.400      |
| 350         | 41.400                      | 32.1           | 31.1             |               |                 | 13.800      |
| 400         | 44.600                      | 31.3           | 30.3             |               |                 | 13.300      |
| 450         | 47.700                      | 30.5           | 29.5             |               |                 | 12.800      |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ACRF (dB) | Min. PSACRF (dB) |
|-------------|------------------------------|------------------|----------------|------------------|
| 1           | 100 ± 15                     | 100 ± 15         | 67.8           | 65.8             |
| 4           | 100 ± 15                     | 100 ± 15         | 55.8           | 53.8             |
| 8           | 100 ± 15                     | 100 ± 15         | 49.7           | 47.7             |
| 10          | 100 ± 15                     | 100 ± 15         | 47.8           | 45.8             |
| 16          | 100 ± 15                     | 100 ± 15         | 43.7           | 41.7             |
| 20          | 100 ± 15                     | 100 ± 15         | 41.8           | 39.8             |
| 25          | 100 ± 15                     | 100 ± 15         | 39.8           | 37.8             |
| 31.25       | 100 ± 15                     | 100 ± 15         | 37.9           | 35.9             |
| 62.5        | 100 ± 15                     | 100 ± 15         | 31.9           | 29.9             |
| 100         | 100 ± 15                     | 100 ± 15         | 27.8           | 25.8             |
| 155         | 100 ± 22                     | 100 ± 15         | 24.0           | 22.0             |
| 200         | 100 ± 22                     | 100 ± 15         | 21.8           | 19.8             |
| 250         | 100 ± 22                     | 100 ± 15         | 19.8           | 17.8             |
| 300         | 100 ± 32                     | 100 ± 15         | 18.3           | 16.3             |
| 350         | 100 ± 32                     | 100 ± 15         | 16.9           | 14.9             |
| 400         | 100 ± 32                     | 100 ± 15         | 15.8           | 13.8             |
| 450         | 100 ± 32                     | 100 ± 15         | 14.7           | 12.7             |

### Notes (Overall)

Notes: Jacket sequentially marked at 2 ft./1m intervals. Third party verified to ANSI/TIA-568-C.2, Category 5e. Values above 350 MHz are for Engineering Information Only.

### Reference (Overall)

Previous Part Number:

24570808, 24597505, 24570835, 24597805, 24577005, 24570845, 24570942, 24570810, 24570840, 24570830, 24570812, 24570944, 24570800

### Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc                 |
|---------------|----------|-------------|-------------|-------|---------------------------|
| 1213 D15A1000 | 1,000 FT | 25.000 LB   | BLUE        | C     | CAT5E+ 4PR U/UTP CMP RIB  |
| 1213 D15U1000 | 1,000 FT | 23.000 LB   | BLUE        |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 D151000  | 1,000 FT | 24.000 LB   | BLUE        |       | CAT5E+ 4PR U/UTP CMP REEL |
| 1213 D152500  | 2,500 FT | 57.500 LB   | BLUE        |       | CAT5E+ 4PR U/UTP CMP REEL |
| 1213 003U1000 | 1,000 FT | 23.000 LB   | ORANGE      |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 004U1000 | 1,000 FT | 23.000 LB   | YELLOW      |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 005U1000 | 1,000 FT | 23.000 LB   | GREEN, DARK |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 007U1000 | 1,000 FT | 23.000 LB   | VIOLET      |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 008U1000 | 1,000 FT | 23.000 LB   | GRAY        |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 009A1000 | 1,000 FT | 26.000 LB   | WHITE       | C     | CAT5E+ 4PR U/UTP CMP RIB  |
| 1213 009U1000 | 1,000 FT | 23.000 LB   | WHITE       |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 0091000  | 1,000 FT | 24.000 LB   | WHITE       | C     | CAT5E+ 4PR U/UTP CMP REEL |
| 1213 010U1000 | 1,000 FT | 23.000 LB   | BLACK       |       | CAT5E+ 4PR U/UTP CMP BOX  |
| 1213 012U1000 | 1,000 FT | 23.000 LB   | PINK        |       | CAT5E+ 4PR U/UTP CMP BOX  |

Notes:

C = CRATE REEL PUT-UP.

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