

## 1533P Multi-Conductor - Category 5e Nonbonded-Pair Cable



For more Information  
please call

1-800-Belden1



### General Description:

CAT5e (100MHz), 4-Pair, F/UTP-Foil shielded, Plenum-CMP, Premise Horizontal Cable, 24 AWG solid bare copper conductors, FEP insulation, overall Beldfoil® shield, Flamarrest® jacket, RJ-45 compatible

### 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, Noisy Environments, 100MHz Category 5e

### 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                  |
|--------------------------------------|
| FEP - Fluorinated Ethylene Propylene |

#### Outer Shield

Outer Shield Material:

| Outer Shield Trade Name | Type | Outer Shield Material        | Coverage (%) |
|-------------------------|------|------------------------------|--------------|
| Beldfoil®               | Tape | Aluminum Foil-Polyester Tape | 100          |

Outer Shield Drain Wire AWG:

| AWG | Stranding | Drain Wire         | Conductor Material |
|-----|-----------|--------------------|--------------------|
| 24  | 7x32      | TC - Tinned Copper |                    |

#### 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.) |
|-----------------|
| 0.235           |

#### 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)

|                                   |                 |
|-----------------------------------|-----------------|
| Operating Temperature Range:      | 0°C To +75°C    |
| Bulk Cable Weight:                | 34 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 25 lbs.         |
| Min. Bend Radius/Minor Axis:      | 1 in.           |
| Min. Bend/Installation:           | 2.350 in.       |

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|                         |            |
|-------------------------|------------|
| NEC/(UL) Specification: | CMP, UL444 |
| CEC/(UL) Specification: | CMP        |

## 1533P Multi-Conductor - Category 5e Nonbonded-Pair Cable

|                                       |                           |
|---------------------------------------|---------------------------|
| 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  |

### Flame Test

|                 |          |
|-----------------|----------|
| UL Flame Test:  | NFPA 262 |
| CSA Flame Test: | FT6      |

### Plenum/Non-Plenum

|                    |       |
|--------------------|-------|
| Plenum (Y/N):      | Yes   |
| Non-Plenum Number: | 1533R |

### 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 (%)  
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) | Min. SRL (dB) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|---------------|
| 1           | 2.0                         | 65.3           | 62.3             | 60.3          | 60.3            | 20.0        | 23.0          |
| 4           | 4.1                         | 56.3           | 53.3             | 49.2          | 49.2            | 23.0        | 23.0          |
| 8           | 5.8                         | 51.8           | 48.8             | 43.0          | 43.0            | 24.5        | 24.5          |
| 10          | 6.5                         | 50.3           | 47.3             | 40.8          | 40.8            | 25.0        | 25.0          |
| 16          | 8.2                         | 47.3           | 44.3             | 36.0          | 36.0            | 25.0        | 25.0          |
| 20          | 9.3                         | 45.8           | 42.8             | 33.5          | 33.5            | 25.0        | 25.0          |
| 25          | 10.4                        | 44.3           | 41.3             | 30.9          | 30.9            | 24.3        | 24.3          |
| 31.25       | 11.7                        | 42.9           | 39.9             | 28.2          | 28.2            | 23.6        | 23.6          |
| 62.5        | 17.0                        | 38.4           | 35.4             | 18.4          | 18.4            | 21.5        | 21.5          |
| 100         | 22.0                        | 35.3           | 32.3             | 10.3          | 10.3            | 20.1        | 20.1          |

#### Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 1           | 100 ± 15                     | 100 ± 15         | 63.8             | 60.8               |

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|       |          |          |      |      |
|-------|----------|----------|------|------|
| 4     | 100 ± 15 | 100 ± 15 | 51.7 | 48.7 |
| 8     | 100 ± 15 | 100 ± 15 | 45.7 | 42.7 |
| 10    | 100 ± 15 | 100 ± 15 | 43.8 | 40.8 |
| 16    | 100 ± 15 | 100 ± 15 | 39.7 | 36.7 |
| 20    | 100 ± 15 | 100 ± 15 | 37.7 | 34.7 |
| 25    | 100 ± 15 | 100 ± 15 | 35.8 | 32.8 |
| 31.25 | 100 ± 15 | 100 ± 15 | 33.9 | 30.9 |
| 62.5  | 100 ± 15 | 100 ± 15 | 27.8 | 24.8 |
| 100   | 100 ± 15 | 100 ± 15 | 23.8 | 20.8 |

### Notes (Overall)

**Notes:** Shield is bonded to jacket inner wall for electrical stability. RJ-45 Compatible. Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-C.2, Category 5e.

### Put Ups and Colors:

| Item #         | Putup    | Ship Weight | Color       | Notes | Item Desc                |
|----------------|----------|-------------|-------------|-------|--------------------------|
| 1533P D15A1000 | 1,000 FT | 37.000 LB   | BLUE        |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P D15I1000 | 1,000 FT | 35.000 LB   | BLUE        | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 002A1000 | 1,000 FT | 37.000 LB   | RED         |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 002I1000 | 1,000 FT | 35.000 LB   | RED         | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 003A1000 | 1,000 FT | 37.000 LB   | ORANGE      |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 003I1000 | 1,000 FT | 35.000 LB   | ORANGE      | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 004A1000 | 1,000 FT | 37.000 LB   | YELLOW      |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 004I1000 | 1,000 FT | 35.000 LB   | YELLOW      | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 005A1000 | 1,000 FT | 37.000 LB   | GREEN, DARK |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 005I1000 | 1,000 FT | 35.000 LB   | GREEN, DARK | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 008A1000 | 1,000 FT | 37.000 LB   | GRAY        |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 008I1000 | 1,000 FT | 35.000 LB   | GRAY        | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 010A1000 | 1,000 FT | 37.000 LB   | BLACK       |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 010I1000 | 1,000 FT | 35.000 LB   | BLACK       | C     | CAT5E 4PR F/UTP CMP REEL |
| 1533P 877A1000 | 1,000 FT | 37.000 LB   | NATURAL     |       | CAT5E 4PR F/UTP CMP RIB  |
| 1533P 877I1000 | 1,000 FT | 35.000 LB   | NATURAL     | C     | CAT5E 4PR F/UTP CMP REEL |

**Notes:**

C = CRATE REEL PUT-UP.

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