

1533R 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, Riser-CMR, Premise Horizontal Cable, 24 AWG solid bare copper conductors, polyolefin insulation, overall Beldfoil® shield, PVC 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 |
|---------------------|
| PO - Polyolefin |

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 Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.260 |

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: -20°C To +75°C

Bulk Cable Weight: 30 lbs/1000 ft.

Max. Recommended Pulling Tension: 25 lbs.

Min. Bend Radius/Minor Axis: 1.100 in.

Min. Bend/Installation: 2.600 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR, UL444

CEC/(UL) Specification: CMR

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| | |
|---------------------------------------|--|
| 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): | 01/01/2004 |
| 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 |
| Other Specification: | NEMA WC-63.1 Category 5e, UL Verified to Category 5e |

Flame Test

| | |
|-----------------|--------------|
| UL Flame Test: | UL1666 Riser |
| CSA Flame Test: | FT4 |

Suitability

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

Plenum/Non-Plenum

| | |
|----------------|-------|
| Plenum (Y/N): | No |
| Plenum Number: | 1533P |

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 |

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| | | | | | | | |
|-------|------|------|------|------|------|------|------|
| 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 |
| 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-B.2, Category 5e.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|-------------|-------|--------------------------|
| 1533R F2VA1000 | 1,000 FT | 35.000 LB | GRAY, DEC | | CAT5E 4PR F/UTP CMR RIB |
| 1533R F2V1000 | 1,000 FT | 34.000 LB | GRAY, DEC | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R F2V1640 | 1,640 FT | 57.400 LB | GRAY, DEC | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R 002A1000 | 1,000 FT | 35.000 LB | RED | C | CAT5E 4PR F/UTP CMR RIB |
| 1533R 0021000 | 1,000 FT | 34.000 LB | RED | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R 003A1000 | 1,000 FT | 35.000 LB | ORANGE | C | CAT5E 4PR F/UTP CMR RIB |
| 1533R 0031000 | 1,000 FT | 34.000 LB | ORANGE | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R 004A1000 | 1,000 FT | 35.000 LB | YELLOW | C | CAT5E 4PR F/UTP CMR RIB |
| 1533R 0041000 | 1,000 FT | 34.000 LB | YELLOW | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R 005A1000 | 1,000 FT | 35.000 LB | GREEN, DARK | C | CAT5E 4PR F/UTP CMR RIB |
| 1533R 0051000 | 1,000 FT | 34.000 LB | GREEN, DARK | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R 006A1000 | 1,000 FT | 35.000 LB | BLUE, LIGHT | | CAT5E 4PR F/UTP CMR RIB |
| 1533R 0061000 | 1,000 FT | 34.000 LB | BLUE, LIGHT | C | CAT5E 4PR F/UTP CMR REEL |
| 1533R 010A1000 | 1,000 FT | 35.000 LB | BLACK | | CAT5E 4PR F/UTP CMR RIB |
| 1533R 0101000 | 1,000 FT | 34.000 LB | BLACK | C | CAT5E 4PR F/UTP CMR REEL |

Notes:

C = CRATE REEL PUT-UP.

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