

7997A Multi-Conductor - Category 5e Outside Plant Cable

For more Information
please call

1-800-Belden1



General Description:

CAT5e (100 MHz), 4 Pair, U/UTP-Unshielded, Outdoor OSP, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Gel-Filled, UV-Resistant LLDPE Jacket

Usage (Overall)

Suitable Applications:

OSP, Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, 200MHz Category 5e, Outside Plant, Duct

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 |
|-----------------------|
| PE - Polyethylene |

Outer Jacket Diameter:

| Nom. Dia. (mm) |
|----------------|
| 5.740 |

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: -40°C To +60°C

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

Operating Temperature Range: -40°C To +60°C

Bulk Cable Weight: 38.693 Kg/Km

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| | |
|-----------------------------------|-----------|
| Max. Recommended Pulling Tension: | 155.687 N |
| Min. Bend Radius/Minor Axis: | 58.420 mm |
| Min. Bend/Installation: | 58.420 mm |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|--|
| EU Directive 2011/65/EU (ROHS II): | Yes |
| IEEE Specification: | POE per IEEE 802.3af |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 07/01/2005 |
| 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, ISO/IEC 11801:2011 Amendment 2.2 Class D |
| ANSI Specification: | ANSI/ICEA S-56-434 Outdoor Use, ANSI/ICEA S-99-689 Broadband Outdoor Use |
| Other Specification: | REA-200 Approved Jacket Material |

Suitability

| | |
|------------------------|--|
| Suitability - Indoor: | No |
| Suitability - Outdoor: | Yes |
| Suitability - Aerial: | Yes - When supported by messenger wire |
| Suitability - Burial: | Yes |
| Sunlight Resistance: | Yes |

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

| |
|--------------------|
| Capacitance (pF/m) |
| 45.934 |

| | |
|---|----|
| Maximum Capacitance Unbalance (pF/100 m): | 66 |
|---|----|

Nominal Velocity of Propagation:

| |
|--------|
| VP (%) |
| 65 |

Max. Delay Skew:

| |
|-----------------------|
| Delay Skew (ns/100 m) |
| 25 |

Maximum Conductor DC Resistance:

| |
|------------------------|
| DCR @ 20°C (Ohm/100 m) |
| 8.9 |

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 | 65.3 | 62.3 | 63.3 | 60.3 | 20.000 |
| 4 | 4.100 | 56.3 | 53.3 | 52.3 | 49.2 | 23.000 |
| 8 | 5.800 | 51.8 | 48.8 | 46.0 | 43.0 | 24.500 |
| 10 | 6.500 | 50.3 | 47.3 | 43.8 | 40.8 | 25.000 |
| 16 | 8.200 | 47.2 | 44.2 | 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 | 31.2 | 28.2 | 23.600 |
| 62.5 | 17.000 | 38.4 | 35.4 | 21.4 | 18.4 | 21.500 |
| 100 | 22.000 | 35.3 | 32.3 | 13.3 | 10.3 | 20.100 |
| 155 | 28.100 | 32.4 | 29.4 | 4.4 | 1.4 | 18.800 |
| 200 | 32.400 | 30.8 | 27.8 | | | 18.000 |

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 | 51.8 | 48.8 |
| 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 | 37.8 | 34.8 |
| 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 | 27.9 | 24.9 |
| 100 | 100 ± 15 | 100 ± 15 | 23.8 | 20.8 |
| 155 | 100 ± 22 | 100 ± 15 | 20.0 | 17.0 |
| 200 | 100 ± 22 | 100 ± 15 | 17.8 | 14.8 |

Notes (Overall)

Notes: Verified to ANSI/TIA-568-C.2, Category 5e, -40C Cold bend per UL 1581, Print Includes Descending Footage / Meter Markings, Water Penetration per GR 421-CORE para. 4.3.5.1, and ANSI/ICEA S-107-704 Para. 8.2.1 Data Above 100 MHz For Engineering Information Only.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|--------------------------|
| 7997A 0101000 | 1,000 FT | 27.000 LB | BLACK | C | CAT5E 4PR U/UTP OSP REEL |

Notes:

C = CRATE REEL PUT-UP.

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