Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



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



For more Information please call

1-800-Belden1



General Description:

CAT5e (200MHz), 4-Pair, U/UTP-Unshielded, OSP Rated, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Gel-Filled, Polyethylene Jacket

8

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, 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:

Insulation

Insulation Material:



Outer Shield

Outer Shield Material:



Outer Jacket

Outer Jacket Material:



Outer Jacket Diameter:



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: | 26 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 35 lbs. |
| Min. Bend Radius/Minor Axis: | 2.300 in. |
| Min. Bend/Installation: | 2.300 in. |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | ., |
|------------------------------------|-----|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |

Page 1 of 3 03-28-2017

Detailed Specifications & Technical Data

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| | 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 | | |
| | Other Specification: | REA-200 Approved Jacket Material | | |
| Su | itability | | | |
| | Suitability - Indoor: | No | | |
| | Suitability - Outdoor: | Yes | | |
| | Suitability - Aerial: | Yes - Black only, when supported by messenger wire. | | |
| | Suitability - Burial: | Yes | | |
| | Sunlight Resistance: | Yes | | |
| Ple | num/Non-Plenum | | | |
| | Plenum (Y/N): | No | | |
| Ple | num/Non-Plenum | | | |

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
14

Maximum Capacitance Unbalance (pF/100 m):

66

Nominal Velocity of Propagation:

VP (%)

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 (%)

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 | 2.0 | 70.3 | 68.3 | 70.3 | 66.3 | 20.0 |
| 4 | 4.0 | 61.3 | 59.3 | 59.3 | 55.3 | 23.0 |
| 8 | 5.7 | 56.8 | 54.8 | 53.1 | 49.1 | 24.5 |
| 10 | 6.4 | 55.3 | 53.3 | 50.9 | 46.9 | 25.0 |
| 16 | 8.1 | 52.2 | 50.2 | 46.1 | 42.1 | 25.0 |
| 20 | 9.1 | 50.8 | 48.8 | 43.7 | 39.7 | 25.0 |
| 25 | 10.2 | 49.3 | 47.3 | 41.1 | 37.1 | 24.3 |
| 31.25 | 11.4 | 47.9 | 45.9 | 38.5 | 34.5 | 23.6 |
| 62.5 | 16.4 | 43.4 | 41.4 | 29.0 | 25.0 | 21.5 |
| 100 | 21.0 | 40.3 | 38.3 | 21.3 | 17.3 | 20.1 |
| 155 | 26.6 | 37.4 | 35.4 | 12.9 | 8.9 | 18.8 |
| 200 | 30.5 | 35.8 | 33.8 | 7.3 | 3.3 | 18.0 |
| *350 | 41.4 | 32.1 | 30.1 | | | 16.3 |
| *400 | 44.6 | 31.3 | 29.3 | | | 15.9 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 1 | 100 ± 15 | 100 ± 15 | 67.8 | 64.8 |
| 4 | 100 ± 15 | 100 ± 15 | 55.8 | 52.8 |
| 8 | 100 ± 15 | 100 ± 15 | 49.7 | 46.7 |

Page 2 of 3 03-28-2017

Detailed Specifications & Technical Data





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| 10 | 100 ± 15 | 100 ± 15 | 47.8 | 44.8 | |
|-------|----------|----------|------|------|--|
| 16 | 100 ± 15 | 100 ± 15 | 43.7 | 40.7 | |
| 20 | 100 ± 15 | 100 ± 15 | 41.8 | 38.8 | |
| 25 | 100 ± 15 | 100 ± 15 | 39.8 | 36.8 | |
| 31.25 | 100 ± 15 | 100 ± 15 | 37.9 | 34.9 | |
| 62.5 | 100 ± 15 | 100 ± 15 | 31.9 | 28.9 | |
| 100 | 100 ± 15 | 100 ± 15 | 27.8 | 24.8 | |
| 155 | 100 ± 22 | 100 ± 15 | 24.0 | 21.0 | |
| 200 | 100 ± 22 | 100 ± 15 | 21.8 | 18.8 | |
| *350 | 100 ± 22 | 100 ± 15 | | | |
| *400 | 100 ± 22 | 100 ± 15 | | | |
| | | | | | |

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Verified to ANSI/TIA-568-C.2, Category 5e. * Frequencies above 200 MHz are for reference only

Put Ups and Colors:

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

C = CRATE REEL PUT-UP.

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Page 3 of 3