

7883A Multi-Conductor - Category 6 Nonbonded-Pair Patch Cable

For more Information
please call

1-800-Belden1



General Description:

Cat 6 Patch Cable, 24 AWG Solid Bare Copper Conductors, Twisted Pairs, Non-Plenum, Polyolefin Insulation, Central Filler, RG-45 Compatible, PVC Jacket.

Usage (Overall)

Suitable Applications: Premise Patch Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM

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

Outer Jacket Diameter:

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

Outer Jacket Ripcord: Yes

Overall Cable

Overall Cabling Separator Material: Central Filler Member

Pair

Pair Color Code Chart:

| Number | Color |
|--------|--------------------------------|
| 1 | White/Blue Stripe and Blue |
| 2 | White/Orange Stripe and Orange |
| 3 | White/Green Stripe and Green |
| 4 | White/Brown Stripe and Brown |

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 27 lbs/1000 ft.

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Max. Recommended Pulling Tension: 40 lbs.

Min. Bend Radius/Minor Axis: 1 in.

Min. Bend/Installation: 2 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMR

Other Standards: ISO/IEC 11801 ed 2.1 (2008) Class E

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

Telecommunications Standards: Category 6 - TIA 568.C.2

Other Specification: UL Verified to Category 6 Patch

Flame Test

UL Flame Test: UL1666 Vertical Riser

C(UL) Flame Test: FT4

CSA Flame Test: FT4

IEEE Flame Test: 1202

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: No

Suitability - Aerial: No

Plenum/Non-Plenum

Plenum (Y/N): No

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)

537 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

45

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

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9.38

Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
5

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 | 2.4 | 74.3 | 72.3 | 71.9 | 69.9 | 20.0 | na |
| 4 | 4.5 | 65.3 | 63.3 | 60.7 | 58.7 | 23.0 | na |
| 8 | 6.4 | 60.8 | 58.8 | 54.4 | 52.4 | 24.5 | na |
| 10 | 7.1 | 59.3 | 57.3 | 52.2 | 50.2 | 25.0 | na |
| 16 | 9.1 | 56.2 | 54.3 | 47.2 | 45.2 | 25.0 | na |
| 20 | 10.2 | 54.8 | 52.8 | 44.6 | 42.6 | 25.0 | na |
| 25 | 11.4 | 53.3 | 51.3 | 41.9 | 39.9 | 24.3 | na |
| 31.25 | 12.8 | 51.9 | 49.9 | 39.1 | 37.1 | 23.6 | na |
| 62.5 | 18.5 | 47.4 | 45.4 | 28.9 | 26.9 | 21.5 | na |
| 100 | 23.8 | 44.3 | 42.3 | 20.5 | 18.5 | 20.1 | na |
| 155 | 30.2 | 41.5 | 39.5 | 11.3 | 9.3 | 18.8 | na |
| 200 | 34.8 | 39.8 | 37.8 | 5.0 | 3.0 | 18.0 | na |
| 250 | 39.4 | 38.3 | 36.3 | | | 17.3 | na |

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 | 52.7 |
| 8 | 100 ± 15 | 100 ± 15 | 49.7 | 46.7 |
| 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 | 23.9 | 20.9 |
| 200 | 100 ± 22 | 100 ± 15 | 21.8 | 18.8 |
| 250 | 100 ± 32 | 100 ± 15 | 19.8 | 16.8 |

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 6 Patch RJ-45 compatible for either 568 A & B configurations

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------------|-------|---------------------------|
| 7883A F2V1000 | 1,000 FT | 24.000 LB | GRAY, DEC | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0021000 | 1,000 FT | 24.000 LB | RED | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0031000 | 1,000 FT | 24.000 LB | ORANGE | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0041000 | 1,000 FT | 24.000 LB | YELLOW | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0051000 | 1,000 FT | 24.000 LB | GREEN, DARK | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0061000 | 1,000 FT | 24.000 LB | BLUE, LIGHT | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0071000 | 1,000 FT | 24.000 LB | VIOLET | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0091000 | 1,000 FT | 24.000 LB | WHITE | C | CAT6 PATCH U/UTP CMR REEL |
| 7883A 0101000 | 1,000 FT | 24.000 LB | BLACK | C | CAT6 PATCH U/UTP CMR REEL |

Notes:
C = CRATE REEL PUT-UP.

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Test Reports

a) UL

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CSA

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

* other test data may be available if requested at time of order.

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