

7852A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable

For more Information
please call

1-800-Belden1



Description:

23 AWG bonded-pairs solid bare copper conductors, plenum, FEP Teflon® insulation, patented e-spline center member, rip cord, see color code chart (below), Flamarrest® jacket (red, orange, yellow, green, blue, black, white, or gray).

Usage (Overall)

Suitable Applications:

Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4 | 23 | Solid | BC - Bare Copper |

Insulation

Insulation Material:

| Insulation Material |
|--------------------------------------|
| FEP - Fluorinated Ethylene Propylene |

Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Trade Name | Outer Jacket Material |
|-------------------------|---------------------------------------|
| Flamarrest® | LS PVC - Low Smoke Polyvinyl Chloride |

Outer Jacket Ripcord:

No

Overall Cabling

Overall Cabling Fillers:

E-Spline Center Member

Overall Nominal Diameter:

0.218 x 0.290 in.

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:

33.800 lbs/1000 ft.

Max. Recommended Pulling Tension:

45 lbs.

7852A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable

Min. Bend Radius (Install)/Minor Axis: 0.250 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|---------------------------|
| NEC/(UL) Specification: | CMP, UL444 |
| CEC/C(UL) Specification: | CMP |
| 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): | 07/01/2006 |
| 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: | 568-B.2-1 Category 6 |
| Other Specification: | UL Verified to Category 6 |

Flame Test

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

Plenum/Non-Plenum

| | |
|--------------------|-------|
| Plenum (Y/N): | Yes |
| Non-Plenum Number: | 7851A |

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
15.5

Nominal Velocity of Propagation:

VP (%)
67

Maximum Capacitance Unbalance (pF/100 m): 65.6

Maximum Delay:

Delay (ns/100 m)
538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)
38

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
8.2

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:

7852A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable

| 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 | 1.900 | 82.3 | 80.3 | 80.5 | 78.5 | 20.000 | 27.0 |
| 4 | 3.600 | 73.3 | 71.3 | 69.7 | 67.7 | 23.000 | 27.0 |
| 8 | 5.100 | 68.8 | 66.8 | 63.7 | 61.7 | 24.500 | 27.0 |
| 10 | 5.700 | 67.3 | 65.3 | 61.6 | 59.6 | 25.000 | 27.0 |
| 16 | 7.200 | 64.3 | 62.3 | 57.0 | 55.0 | 25.000 | 27.0 |
| 20 | 8.100 | 62.8 | 60.8 | 54.7 | 52.7 | 25.000 | 27.0 |
| 25 | 9.100 | 61.3 | 59.3 | 52.3 | 50.3 | 25.000 | 26.0 |
| 31.25 | 10.200 | 59.9 | 57.9 | 49.7 | 47.7 | 25.000 | 25.1 |
| 62.5 | 14.700 | 55.4 | 53.4 | 40.7 | 38.7 | 25.000 | 22.1 |
| 100 | 18.900 | 52.3 | 50.3 | 33.4 | 31.4 | 25.000 | 20.0 |
| 155 | 23.900 | 49.5 | 47.5 | 25.5 | 23.5 | 22.800 | 18.1 |
| 200 | 27.500 | 47.8 | 45.8 | 20.3 | 18.3 | 21.600 | 17.0 |
| 250 | 31.200 | 46.3 | 44.3 | 15.2 | 13.2 | 20.500 | 16.2 |
| 300 | 34.500 | 43.2 | 41.2 | 10.6 | 8.6 | 20.200 | 15.2 |
| 310 | 35.200 | 42.9 | 40.9 | 9.8 | 7.8 | 20.100 | 15.1 |
| 350 | 37.700 | 42.2 | 40.2 | 6.5 | 4.5 | 19.800 | 14.6 |
| 400 | 40.600 | 41.3 | 39.3 | 2.6 | 0.6 | 19.500 | 14.0 |
| 450 | 43.500 | 40.5 | 38.5 | 2.1 | 0.10 | 18.900 | 13.5 |
| 460 | 44.000 | 40.4 | 38.4 | 0 | 0 | 18.800 | 13.4 |
| 500 | 46.200 | 39.8 | 37.8 | | | 18.400 | 13.0 |
| 550 | 48.800 | 39.2 | 37.2 | | | 18.000 | 12.6 |
| 600 | 51.400 | 38.6 | 36.6 | | | 17.600 | 12.2 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 1 | 100 ± 12 | 100 ± 15 | 73.8 | 70.8 |
| 4 | 100 ± 12 | 100 ± 10.4 | 61.8 | 58.8 |
| 8 | 100 ± 12 | 100 ± 8 | 55.7 | 52.7 |
| 10 | 100 ± 12 | 100 ± 7.3 | 53.8 | 50.8 |
| 16 | 100 ± 12 | 100 ± 5.7 | 49.7 | 46.7 |
| 20 | 100 ± 12 | 100 ± 5 | 47.8 | 44.8 |
| 25 | 100 ± 15 | 100 ± 5 | 45.8 | 42.8 |
| 31.25 | 100 ± 15 | 100 ± 5 | 43.9 | 40.9 |
| 62.5 | 100 ± 15 | 100 ± 5 | 37.9 | 34.9 |
| 100 | 100 ± 15 | 100 ± 5 | 33.8 | 30.8 |
| 155 | 100 ± 15 | 100 ± 5 | 30.0 | 27.0 |
| 200 | 100 ± 15 | 100 ± 5 | 27.8 | 24.8 |
| 250 | 100 ± 20 | 100 ± 5 | 25.8 | 22.8 |
| 300 | 100 ± 20 | 100 ± 5 | 24.3 | 21.3 |
| 310 | 100 ± 20 | 100 ± 5 | 24.0 | 21.0 |
| 350 | 100 ± 22 | 100 ± 5 | 22.9 | 19.9 |
| 400 | 100 ± 22 | 100 ± 5 | 21.8 | 18.8 |
| 450 | 100 ± 22 | 100 ± 5 | 20.7 | 17.7 |
| 460 | 100 ± 22 | 100 ± 5 | 20.5 | 17.5 |
| 500 | 100 ± 22 | 100 ± 5 | 19.8 | 16.8 |
| 550 | 100 ± 22 | 100 ± 5 | 19.0 | 16.0 |
| 600 | 100 ± 22 | 100 ± 5 | 18.2 | 15.2 |

Notes (Overall)

Notes: Belden IBDN. Jacket sequentially marked at 2 ft. intervals. US Patent #'s 6297454-B1; 5606151; 5734126; 5789711. Third party verified to TIA/EIA-568-B.2-1, Category 6.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|--------|-------|--------------------|
| 7852A D15A1000 | 1,000 FT | 44.000 LB | BLUE | | 4 PR #23 FEP FLRST |
| 7852A D151000 | 1,000 FT | 40.000 LB | BLUE | C | 4 PR #23 FEP FLRST |
| 7852A 0021000 | 1,000 FT | 35.000 LB | RED | | 4 PR #23 FEP FLRST |
| 7852A 004A1000 | 1,000 FT | 38.000 LB | YELLOW | | 4 PR #23 FEP FLRST |
| 7852A 0041000 | 1,000 FT | 35.000 LB | YELLOW | C | 4 PR #23 FEP FLRST |

7852A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable

| | | | | | |
|----------------|----------|-----------|-------------|---|--------------------|
| 7852A 005A1000 | 1,000 FT | 38.000 LB | GREEN, DARK | | 4 PR #23 FEP FLRST |
| 7852A 0051000 | 1,000 FT | 35.000 LB | GREEN, DARK | C | 4 PR #23 FEP FLRST |
| 7852A 008A1000 | 1,000 FT | 38.000 LB | GRAY | | 4 PR #23 FEP FLRST |
| 7852A 0081000 | 1,000 FT | 35.000 LB | GRAY | | 4 PR #23 FEP FLRST |
| 7852A 009A1000 | 1,000 FT | 38.000 LB | WHITE | | 4 PR #23 FEP FLRST |
| 7852A 0091000 | 1,000 FT | 35.000 LB | WHITE | C | 4 PR #23 FEP FLRST |
| 7852A 0101000 | 1,000 FT | 35.000 LB | BLACK | | 4 PR #23 FEP FLRST |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 03-07-2008

© 2008 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.