



Product: [7852A](#)

Category 6+ Enhanced Cable, 4 Bonded-Pairs, U/UTP, CMP



Product Description

Category 6+ Enhanced Premise Horizontal Cable (600MHz), 4 Bonded-Pairs, 23 AWG Solid Bare Copper Conductors, U/UTP, Plenum-CMP, Flamarrest® PVC-LS Jacket

Technical Specifications

Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE  |
| Patent:                | This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> . |

Construction Details

Conductor

| Size   | Stranding | Material         | No. of Pairs |
|--------|-----------|------------------|--------------|
| 23 AWG | Solid     | BC - Bare Copper | 4            |

Insulation

| Material                             | Color Code   |
|--------------------------------------|--|
| FEP - Fluorinated Ethylene Propylene | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

Bonded-Pair:

Yes

Outer Jacket

| Separator                          | Material                 | Material Trade Name | Nom. Diameter      | Ripcord |
|------------------------------------|--------------------------|---------------------|--------------------|---------|
| Center Member (Patented E-Spline®) | PVC - Polyvinyl Chloride | Flamarrest®         | 0.266 in (6.76 mm) | Yes     |

Overall Cable Diameter (Nominal):

0.266 in (6.76 mm)

Electrical Characteristics

| Electricals               |  |                            |  |
|---------------------------|--|----------------------------|--|
| Max. Conductor DCR        |  | Max. Capacitance Unbalance |  |
| 82 Ohm/km (25 Ohm/1000ft) |  | 90 pF/100m                 |  |

| Delay     |               |                 |                        |
|-----------|---------------|-----------------|------------------------|
| Frequency | Max. Delay    | Max. Delay Skew | Nom. Velocity of Prop. |
| 100 MHz   | 537.6 ns/100m | 38 ns/100m      | 67%                    |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--|----------------------------------|---------------|------------------|
| 1               | 1.8 dB/100m                       | 82.3           | 80.3             | 80.5          | 78.5            | 74.8                    | 72.8                        | 20.0                       | 100 ± 12                                   | 100 ± 15                         | 40.0          | 35.0             |
| 4               | 3.5 dB/100m                       | 73.3           | 71.3             | 69.7          | 67.7            | 62.8                    | 60.8                        | 23.0                       | 100 ± 12                                   | 100 ± 10.4                       | 40.0          | 23.0             |
| 8               | 5.0 dB/100m                       | 68.8           | 66.8             | 63.7          | 61.7            | 56.7                    | 54.7                        | 24.5                       | 100 ± 12                                   | 100 ± 8                          | 40.0          | 16.9             |
| 10              | 5.7 dB/100m                       | 67.3           | 65.3             | 61.6          | 59.6            | 54.8                    | 52.8                        | 25.0                       | 100 ± 12                                   | 100 ± 7.3                        | 40.0          | 15.0             |
| 16              | 7.2 dB/100m                       | 64.2           | 62.2             | 57.0          | 55.0            | 50.7                    | 48.7                        | 25.0                       | 100 ± 12                                   | 100 ± 5.7                        | 38.0          | 10.9             |
| 20              | 8.1 dB/100m                       | 62.8           | 60.8             | 54.7          | 52.7            | 48.8                    | 46.8                        | 25.0                       | 100 ± 12                                   | 100 ± 5                          | 37.0          | 9.0              |
| 25              | 9.1 dB/100m                       | 61.3           | 59.3             | 52.3          | 50.3            | 46.8                    | 44.8                        | 25.0                       | 100 ± 15                                   | 100 ± 5                          | 36.0          | 7.0              |

|       |              |      |      |      |      |      |      |      |          |         |      |     |
|-------|--------------|------|------|------|------|------|------|------|----------|---------|------|-----|
| 30    | 10.0 dB/100m | 60.1 | 58.1 | 50.2 | 48.2 | 45.3 | 43.3 | 25.0 | 100 ± 15 | 100 ± 5 | 35.2 | 5.5 |
| 31.25 | 10.2 dB/100m | 59.9 | 57.9 | 49.7 | 47.7 | 44.9 | 42.9 | 25.0 | 100 ± 15 | 100 ± 5 | 35.1 |     |
| 62.5  | 14.7 dB/100m | 55.4 | 53.4 | 40.7 | 38.7 | 38.9 | 36.9 | 25.0 | 100 ± 15 | 100 ± 5 | 32.0 |     |
| 100   | 18.9 dB/100m | 52.3 | 50.3 | 33.4 | 31.4 | 34.8 | 32.8 | 25.0 | 100 ± 15 | 100 ± 5 | 30.0 |     |
| 155   | 23.9 dB/100m | 49.4 | 47.4 | 25.5 | 23.5 | 31.0 | 29.0 | 22.8 | 100 ± 15 | 100 ± 5 | 28.1 |     |
| 200   | 27.5 dB/100m | 47.8 | 45.8 | 20.3 | 18.3 | 28.8 | 26.8 | 21.6 | 100 ± 15 | 100 ± 5 | 27.0 |     |
| 240   | 30.5 dB/100m | 46.6 | 44.6 | 16.1 | 14.1 | 27.2 | 25.2 | 20.6 | 100 ± 20 | 100 ± 5 | 26.2 |     |
| 250   | 31.2 dB/100m | 46.3 | 44.3 | 15.2 | 13.2 | 26.8 | 24.8 | 20.5 | 100 ± 20 | 100 ± 5 | 26.0 |     |
| 300   | 34.5 dB/100m | 43.1 | 43.1 | 8.6  | 8.6  | 25.3 | 23.3 | 20.1 | 100 ± 20 | 100 ± 5 |      |     |
| 310   | 35.2 dB/100m | 42.9 | 42.9 | 7.8  | 7.8  | 25.0 | 23.0 | 20.0 | 100 ± 20 | 100 ± 5 |      |     |
| 350   | 37.7 dB/100m | 42.1 | 42.1 | 4.5  | 4.5  | 23.9 | 21.9 | 19.8 | 100 ± 22 | 100 ± 5 |      |     |
| 400   | 40.6 dB/100m | 41.3 | 41.3 | 0.6  | 0.6  | 22.8 | 20.8 | 19.5 | 100 ± 22 | 100 ± 5 |      |     |
| 436   | 42.7 dB/100m | 40.7 | 40.7 |      |      | 22.0 | 20.0 | 19.1 | 100 ± 22 | 100 ± 5 |      |     |
| 450   | 43.5 dB/100m | 40.5 | 40.5 |      |      | 21.7 | 19.7 | 18.9 | 100 ± 22 | 100 ± 5 |      |     |
| 460   | 44.0 dB/100m | 40.4 | 40.4 |      |      | 21.5 | 19.5 | 18.8 | 100 ± 22 | 100 ± 5 |      |     |
| 500   | 46.2 dB/100m | 39.8 | 39.8 |      |      | 20.8 | 18.8 | 18.4 | 100 ± 22 | 100 ± 5 |      |     |
| 550   | 48.8 dB/100m | 39.2 | 39.2 |      |      | 20.0 | 18.0 | 18.0 | 100 ± 22 | 100 ± 5 |      |     |
| 600   | 51.4 dB/100m | 38.6 | 38.6 |      |      | 19.2 | 17.2 | 17.6 | 100 ± 22 | 100 ± 5 |      |     |

Voltage

| UL Voltage Rating         |
|---------------------------|
| 300 V (CMP), 300 V (CL3P) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating      | Installation | Storage        |
|----------------|----------------|--------------|----------------|
| 105°C          | -20°C To +75°C | 0°C To +50°C | -20°C To +75°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 0.5 in (13 mm)  | 2.25 in (57.2 mm) |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 40 lbs (18 kg) |
| Bulk Cable Weight: | 38 lbs/1000ft  |

Standards and Compliance

|                                       |   |
|---------------------------------------|---|
| Environmental Suitability:            | Plenum, Indoor  |
| Sustainability:                       | Product Lens™, Environmental Product Declaration (EPD) Available  |
| Flammability / Reaction to Fire:      | NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2   |
| CPR Compliance:                       | CPR Euroclass: Eca  |
| NEC / UL Compliance:                  | Article 800, CMP, CMP-LP (0.6A), CL3P-LP (0.6A)   |
| CEC / C(UL) Compliance:               | CMP   |
| ICEA Compliance:                      | S-116-732   |
| IEEE Compliance:                      | IEEE 802.3bt Type 1, Type 2, Type 3, Type 4   |
| NEMA Compliance:                      | ANSI/NEMA WC-66   |
| Data Category:                        | Category 6  |
| TIA/EIA Compliance:                   | ANSI/TIA-568.2-D Category 6   |
| Third Party Performance Verification: | Category 6  |
| ISO/IEC Compliance:                   | ISO/IEC 11801-1, IEC 61156-5  |
| CENELEC Compliance:                   | Segregation class according EN50174-2 = a   |
| European Directive Compliance:        | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| UK Regulation Compliance:             | UKCA Mark   |
| APAC Compliance:                      | China RoHS II (GB/T 26572-2011)   |
| Non-Plenum Number:                    | 7851A   |

Product Notes

|        |  |
|--------|--|
| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 600 MHz are for Engineering Information Only. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. |
|--------|--|

History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.577 Revision Date: 04-29-2024 |
|----------------------|--|

Part Numbers

Variants

| Item #         | Color  | Putup Type  | Length   | UPC          | Footnote |
|----------------|--------|-------------|----------|--------------|----------|
| 7852A D15Z1000 |        |             |          | 612825433385 |          |
| 7852A 0101000  | Black  | Reel        | 1,000 ft | 612825190486 |          |
| 7852A D151000  | Blue   | Reel        | 1,000 ft | 612825190363 | C        |
| 7852A D15A1000 | Blue   | Reel-in-Box | 1,000 ft | 612825190356 |          |
| 7852A 0081000  | Gray   | Reel        | 1,000 ft | 612825190455 |          |
| 7852A 008A1000 | Gray   | Reel-in-Box | 1,000 ft | 612825190448 |          |
| 7852A 0051000  | Green  | Reel        | 1,000 ft | 612825190431 | C        |
| 7852A 005A1000 | Green  | Reel-in-Box | 1,000 ft | 612825190424 |          |
| 7852A 0031000  | Orange | Reel        | 1,000 ft | 612825190394 | C        |
| 7852A 003A1000 | Orange | Reel-in-Box | 1,000 ft | 612825190387 | C        |
| 7852A 0021000  | Red    | Reel        | 1,000 ft | 612825190370 |          |
| 7852A 0091000  | White  | Reel        | 1,000 ft | 612825190479 | C        |
| 7852A 009A1000 | White  | Reel-in-Box | 1,000 ft | 612825190462 |          |
| 7852A 0041000  | Yellow | Reel        | 1,000 ft | 612825190417 | C        |
| 7852A 004A1000 | Yellow | Reel-in-Box | 1,000 ft | 612825190400 |          |

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