



Product: [1888ENH](#)

Category 7A Enhanced Cable, 4 Pair, S/FTP, LSZH Indoor CPR Dca

Product Description

Category 7A Enhanced Premise Horizontal Cable (1200MHz), 4-Pair, 22 AWG solid bare copper conductors, S/FTP, Foam Polyethylene insulation, each pair with Beldfoil® shield, overall tinned copper braid shield (50% coverage), LSZH jacket

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Horizontal and building backbone cable; Support current and future Category 6a, 7 and 7a applications, such as: 10GBase - T (10 Gigabit Ethernet), 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM |
|------------------------|--|

Construction Details

Conductor

| Element | Size | Stranding | Material | Number of Pairs | Number of Element |
|--------------------------|--------|-----------|------------------|-----------------|-------------------|
| Individual Shielded Pair | 22 AWG | Solid | BC - Bare Copper | 4 | 8 |

Insulation

| Element | Material | Nom. Insulation Diameter | Color Code |
|--------------------------|--------------------------|--------------------------|--|
| Individual Shielded Pair | PE - Polyethylene (Foam) | 1.6 mm (0.063 in) | White & Blue, White & Orange, White & Green, White & Brown |

Cable Core

| Description |
|-----------------------------------|
| 4 shielded pairs twisted together |

Inner Shield

| Element | Shield Type | Material | Coverage |
|--------------------------|-------------|-------------------------|----------|
| Individual Shielded Pair | Tape | Bi-Laminate (Alum+Poly) | 100% |

Table Notes: Aluminum facing outside

Outer Shield

| Shield Type | Material | Coverage |
|-------------|--------------------|----------|
| Braid | Tinned Copper (TC) | 50% |

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|---|------------------|---------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 8.1 mm (0.32 in) | Yes |

Overall Cable Diameter (Nominal): 8.1 mm (0.32 in)

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Mutual Capacitance | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|--------------------|-------------------------|----------------------------|-------------------------------|
| 95 Ohm/km | 56 pF/m (17 pF/ft) | 160 pF/100m | 100 Ohm |

Delay

| Max. Delay Skew | Nom. Velocity of Prop. |
|-----------------|------------------------|
| 25 ns/100m | 73% |

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] | Min. PSANEXT [dB] | Min. PSAACRF [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|-------------------|-------------------|---------------|------------------|
| 1 | 2.1 dB/100m | 78 | 75 | 75.9 | 72.9 | 78 | 75 | 20 | 67 | 67 | 40 | 23 |
| 4 | 3.7 dB/100m | 78 | 75 | 74.3 | 71.3 | 78 | 75 | 23 | 67 | 67 | 34 | 15 |
| 10 | 5.8 dB/100m | 78 | 75 | 72.2 | 69.2 | 75.3 | 72.3 | 25 | 67 | 67 | 30 | 10.9 |
| 16 | 7.3 dB/100m | 78 | 75 | 70.7 | 67.7 | 71.2 | 68.2 | 25 | 67 | 67 | 28 | 5.1 |
| 31.2 | 10.3 dB/100m | 78 | 75 | 67.7 | 64.7 | 65.4 | 62.4 | 23.6 | 67 | 63.3 | 25.2 | |
| 62.5 | 14.6 dB/100m | 78 | 75 | 63.4 | 60.4 | 59.4 | 56.4 | 21.5 | 67 | 57.3 | 22 | |
| 100 | 18.5 dB/100m | 75.4 | 72.4 | 56.9 | 53.9 | 55.3 | 52.3 | 20.1 | 67 | 53.2 | 20 | |
| 155 | 23.2 dB/100m | 72.5 | 69.5 | 49.3 | 46.3 | 51.5 | 48.5 | 18.8 | 67 | 49.4 | 18.1 | |
| 250 | 29.7 dB/100m | 69.4 | 66.4 | 39.7 | 36.7 | 47.3 | 44.3 | 17.3 | 67 | 45.2 | 16 | |
| 500 | 42.8 dB/100m | 64.9 | 61.9 | 22.2 | 19.2 | 41.3 | 38.3 | 17.3 | 67 | 39.2 | | |
| 600 | 47.1 dB/100m | 63.7 | 60.7 | 16.6 | 13.6 | 39.7 | 36.7 | 17.3 | 65.8 | 37.6 | | |
| 1000 | 61.9 dB/100m | 60.4 | 57.4 | -1.5 | -4.5 | 35.3 | 32.3 | 15.1 | 62.5 | 33.2 | | |
| 1200 | 68.4 dB/100m | 59.2 | 56.2 | -9.1 | -12.1 | 33.7 | 30.7 | 14.3 | | | | |

Table Notes: Limits below 4 MHz are for information only.; Values at 1200 MHz are for information only. Reference standard: IEC 61156-5

Transfer Impedance

| Frequency | Max. Transfer Impedance |
|-----------|-------------------------|
| 1 Mhz | Max. 10 mOhm/m |
| 10 Mhz | Max. 10 mOhm/m |
| 30 Mhz | Max. 30 mOhm/m |
| 100 Mhz | Max. 100 mOhm/m |

Transfer Impedance Class: Grade 1

Screening Class: Type I

Table Notes: Coupling Attenuation

Voltage

| Voltage Rating |
|----------------|
| 72 V DC |

Mechanical Characteristics

Temperature

| Operating | Installation |
|----------------|--------------|
| -30°C to +60°C | 0°C To +50°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 33 mm (1.3 in) | 65 mm |

Max. Pull Tension: 105 N (23.6 lbf)

Bulk Cable Weight: 67 kg/km

Standards and Compliance

| | |
|----------------------------------|--|
| Environmental Suitability: | Indoor - Euroclass Dca |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Dca-s2,d1,a1 |
| IEEE Compliance: | PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4 |
| Data Category: | Category 7A |
| TIA/EIA Compliance: | ANSI/TIA 568.2-D |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61034-2 - Smoke Density Min Transmittance = 60% |
| CENELEC Compliance: | EN 50173-1, Segregation class according EN50174-2 = d |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 μS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |
| European Directive Compliance: | EU CE Mark |

Product Notes

Notes: Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.

History

Update and Revision: Revision Number: 0.306 Revision Date: 04-12-2022

Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|----------------|----------------|------------|---------|---------------|
| 1888ENH.00500 | Gray, RAL 7032 | Reel | 500 m | 8719605004819 |
| 1888ENH.01500 | Orange | Reel | 500 m | 8719605167514 |
| 1888ENH.011000 | Orange | Reel | 1,000 m | 8719605167521 |

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