



Product: [2137A](#)

Category 5e Indoor/Outdoor OSP/CM-LS LSZH Cable

Product Description

CAT5e (200MHz), 4-Pair, U/UTP-Unshielded, CM-LS Rated, Premise Horizontal OSP Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Gel-filled, UV Resistant Flame Retardant Polyolefin Jacket

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | OSP-Outdoor, CM-LS, Low Smoke, Indoor/Outdoor, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422 |
| Patent: | This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents . |

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | No. of Pairs |
|-----|-----------|------------------|--------------|
| 24 | Solid | BC - Bare Copper | 4 |

| | |
|------------------------|---|
| Conductor Count: | 8 |
| Total Number of Pairs: | 4 |

Insulation

| | |
|-----------------|-----|
| Material | |
| PO - Polyolefin | |
| Bonded-Pair: | N/A |

Color Chart

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

| | |
|--------------------|---|
| Water Penetration: | GR 421CORE para. 4.3.5.1, ANSI/ICEA S107704 para. 8.2.1, ANSI/ICEA S-99-689 |
|--------------------|---|

Outer Jacket Material

| Material | Material Trade Name | Nominal Diameter | Ripcord |
|---|---------------------|------------------|---------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | Haloarrest® | 0.251 in | No |

Electrical Characteristics

Conductor DCR

| Max. Conductor DCR | Max. DCR Unbalance |
|--------------------|--------------------|
| 93.8 Ohm/km | 5.0 % |

Capacitance

| Max. Capacitance Unbalance | Nom.Mutual Capacitance |
|----------------------------|------------------------|
| 330 pF/100m | 15 pF/ft |

Delay

| Frequency [MHz] | Max. Delay | Max. Delay Skew |
|-----------------|---------------|-----------------|
| 100 MHz | 537.6 ns/100m | 45 ns/100m |

High Freq

| 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) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--------------------------------------|----------------------------|
| 1 MHz | 2.0 dB/100m | 65.3 dB | 62.3 dB | 63.3 dB | 60.3 dB | 63.8 dB | 60.8 dB | 20.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 4 MHz | 4.1 dB/100m | 56.3 dB | 53.3 dB | 52.2 dB | 49.2 dB | 51.8 dB | 48.8 dB | 23.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 8 MHz | 5.8 dB/100m | 51.8 dB | 48.8 dB | 46.0 dB | 43.0 dB | 45.7 dB | 42.7 dB | 24.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 10 MHz | 6.5 dB/100m | 50.3 dB | 47.3 dB | 43.8 dB | 40.8 dB | 43.8 dB | 40.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 16 MHz | 8.2 dB/100m | 47.2 dB | 44.2 dB | 39.0 dB | 36.0 dB | 39.7 dB | 36.7 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 20 MHz | 9.3 dB/100m | 45.8 dB | 42.8 dB | 36.5 dB | 33.5 dB | 37.8 dB | 34.8 dB | 25.0 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 25 MHz | 10.4 dB/100m | 44.3 dB | 41.3 dB | 33.9 dB | 30.9 dB | 35.8 dB | 32.8 dB | 24.3 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 31.25 MHz | 11.7 dB/100m | 42.9 dB | 39.9 dB | 31.2 dB | 28.2 dB | 33.9 dB | 30.9 dB | 23.6 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 62.5 MHz | 17.0 dB/100m | 38.4 dB | 35.4 dB | 21.4 dB | 18.4 dB | 27.9 dB | 24.9 dB | 21.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 100 MHz | 22.0 dB/100m | 35.3 dB | 32.3 dB | 13.3 dB | 10.3 dB | 23.8 dB | 20.8 dB | 20.1 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 155 MHz | 28.1 dB/100m | 32.4 dB | 29.4 dB | 4.4 dB | 1.4 dB | 20.0 dB | 17.0 dB | 18.8 dB | | |
| 200 MHz | 32.4 dB/100m | 30.8 dB | 27.8 dB | | | 17.8 dB | 14.8 dB | 18.0 dB | | |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V RMS |

Temperature Range

| | |
|--------------------------|----------------|
| Installation Temp Range: | -20°C To +75°C |
| UL Temp Rating: | 75°C |
| Storage Temp Range: | -40°C To +75°C |
| Operating Temp Range: | -40°C To +75°C |

Mechanical Characteristics

| | |
|--------------------------------------|------------------------------|
| Cold Bend Test: | -20°C Compliance per UL 1581 |
| Bulk Cable Weight: | 35 lbs/1000ft |
| Max. Pull Tension: | 25 lbs |
| Min Bend Radius During Installation: | 2.5 in |
| Min Bend Radius/Minor Axis: | 1.0 in |

Standards

| | |
|-----------------------|--|
| NEC/(UL) Compliance: | CM-LS |
| CEC/C(UL) Compliance: | CM-LS |
| IEC Compliance: | 11801 ed 2.2 (2011) Class D |
| Data Category: | Category 5e |
| ANSI Compliance: | S-90-661-2012 Category 5e, ANSI/NEMA WC-63.1 Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568-C.2 Category 5e |
| IEEE Compliance: | IEEE 802.3bt Type 1, Type 2, Type 3 |
| Other Compliance: | Outdoor Use ANSI/ICEA S56434, Broadband Outdoor Use ANSI/ICEA S99689, Indoor/Outdoor Use ANSI/ICEA S100685 |

Applicable Environmental and Other Programs

| | |
|--|----------------|
| Environmental Space: | Indoor/Outdoor |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/96/EC (BFR): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |
| EU Directive 2015/863/EU: | Yes |
| EU Directive Compliance: | Yes |
| EU CE Mark: | Yes |
| EU REACH SVHC Compliance (yyyy-mm-dd): | 2017-07-10 |

| | |
|---------------------------------------|------------|
| EU RoHS Compliance Date (yyyy-mm-dd): | 2014-01-01 |
|---------------------------------------|------------|

Suitability

| | |
|------------------------------------|--|
| Suitability - Aerial: | Yes - When supported by messenger wire |
| Suitability - Burial: | Yes - Engineered burial only |
| Suitability - Hazardous Locations: | No |
| Suitability - Indoor: | Yes |
| Suitability - Non-Halogenated: | Yes |
| Suitability - Oil Resistance: | No |
| Suitability - Outdoor: | Yes |
| Suitability - Sunlight Resistance: | Yes |

Flammability, LSOH, Toxicity Testing

| | |
|--------------------|------------------------------------|
| UL Flammability: | UL 1685 (UL Loading-Limited Smoke) |
| UL voltage rating: | 300 V RMS |

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Part Number

Variants

| Item # | Color | UPC |
|---------------|-------|--------------|
| 2137A 0101000 | Black | 612825321255 |

Product Notes

| | |
|--------|---|
| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values over 100 MHz are for Engineering Information Only. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. Suitable for use in Buildings in Wet Locations. Not Suitable for Direct Burial. Fully Water Blocked and Sunlight Resistant (Black Jacket Only). |
|--------|---|

History

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| Update and Revision: | Revision Number: 0.236 Revision Date: 09-25-2020 |
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