



Product: [OSP6U](#)

Category 6 OSP Cable, 4 Pair, U/UTP, Gel Filled

Product Description

Category 6 Premise Horizontal Cable (350MHz), OSP Rated, 4-Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Gel-Filled, Polyethylene Jacket

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | OSP-Outside, Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE, Noisy Environments |
|------------------------|--|

Construction Details

Conductor

| Size | Stranding | Material | Number of Pairs |
|--------|-----------|------------------|-----------------|
| 24 AWG | Solid | BC - Bare Copper | 4 |

Insulation

| Material | Color Code |
|-----------------|--|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

| | |
|----------------|------------|
| Waterblocking: | Gel Filled |
|----------------|------------|

Outer Jacket

| Separator | Material | Nom. Diameter | Ripcord |
|------------------------------------|-------------------|--------------------|---------|
| Center Member (Patented X-Spline®) | PE - Polyethylene | 0.251 in (6.38 mm) | Yes |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.251 in (6.38 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 160 pF/100m |

Delay

| Frequency | Max. Delay | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz | 537.6 ns/100m | 45 ns/100m | 65% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [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 | 2.0 dB/100m | 74.3 | 72.3 | 70.3 | 67.8 | 64.8 | 20.0 | 100 ± 15 | 100 ± 15 | 40.0 | 35.0 |
| 4 | 3.8 dB/100m | 65.3 | 63.3 | 59.5 | 55.7 | 52.7 | 23.0 | 100 ± 15 | 100 ± 15 | 40.0 | 23.0 |
| 8 | 5.3 dB/100m | 60.8 | 58.8 | 53.4 | 49.7 | 46.7 | 24.5 | 100 ± 15 | 100 ± 15 | 40.0 | 16.9 |
| 10 | 6.0 dB/100m | 59.3 | 57.3 | 51.4 | 47.8 | 44.8 | 25.0 | 100 ± 15 | 100 ± 15 | 40.0 | 15.0 |
| 16 | 7.6 dB/100m | 56.3 | 54.3 | 46.7 | 43.7 | 40.7 | 25.0 | 100 ± 15 | 100 ± 15 | 38.0 | 10.9 |
| 20 | 8.5 dB/100m | 54.8 | 52.8 | 44.3 | 41.7 | 38.7 | 25.0 | 100 ± 15 | 100 ± 15 | 37.0 | 9.0 |
| 25 | 9.5 dB/100m | 53.3 | 51.3 | 41.8 | 39.8 | 36.8 | 24.3 | 100 ± 15 | 100 ± 15 | 36.0 | 7.0 |

| | | | | | | | | | | | |
|-------|--------------|------|------|------|------|------|------|----------|----------|------|-----|
| 31.25 | 10.7 dB/100m | 51.9 | 49.9 | 39.2 | 37.9 | 34.9 | 23.6 | 100 ± 15 | 100 ± 15 | 35.1 | 5.1 |
| 62.5 | 15.4 dB/100m | 47.4 | 45.4 | 30.0 | 31.8 | 28.8 | 21.5 | 100 ± 15 | 100 ± 15 | 32.0 | |
| 100 | 19.8 dB/100m | 44.3 | 42.3 | 22.5 | 27.8 | 24.8 | 20.1 | 100 ± 15 | 100 ± 15 | 30.0 | |
| 155 | 25.2 dB/100m | 41.5 | 39.5 | 14.3 | 23.9 | 20.9 | 18.8 | 100 ± 22 | 100 ± 15 | 28.1 | |
| 200 | 29.0 dB/100m | 39.8 | 37.8 | 8.8 | 21.7 | 18.7 | 18.0 | 100 ± 22 | 100 ± 15 | 27.0 | |
| 250 | 32.8 dB/100m | 38.3 | 36.3 | 3.5 | 19.8 | 16.8 | 17.3 | 100 ± 32 | 100 ± 15 | 26.0 | |

Voltage

| Voltage Rating |
|----------------|
| 300 V |

Mechanical Characteristics

Temperature

| Operating | Installation | Storage |
|----------------|----------------|----------------|
| -40°C To +75°C | -40°C To +60°C | -40°C To +75°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 1.0 in (25 mm) | 2.5 in (64 mm) |

Max. Pull Tension: 25 lbs (11 kg)

Bulk Cable Weight: 25 lbs/1000ft

Standards and Compliance

| | |
|--------------------------------|---|
| Environmental Suitability: | Outdoor, Outdoor, Sunlight Resistance, Aerial - When supported by messenger wire |
| Sustainability: | Product Lens™, Environmental Product Declaration (EPD) Available |
| ICEA Compliance: | S-116-732, S-56-434, S-99-689, S-100-685 |
| IEEE Compliance: | IEEE 802.3bt Type 1, Type 2, Type 3 |
| NEMA Compliance: | ANSI/NEMA WC-66 |
| Data Category: | Category 6 |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 6 |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61156-5 |
| CENELEC Compliance: | Segregation class according EN50174-2 = a |
| European Directive Compliance: | 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 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Product Notes

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| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. 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). Belden recommends using an entrance demarcation point when transitioning inside buildings with gel-filled OSP cables due to the cable design containing gel specific for wet outdoor environments. The suggested transition point is the REVConnect core coupler, part number RVACPUBK-S1. |
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History

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| Update and Revision: | Revision Number: 0.525 Revision Date: 03-04-2023 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC |
|---------------|-------|------------|----------|--------------|
| OSP6U 0101000 | Black | Reel | 1,000 ft | 612825295235 |
| OSP6U 0101000 | Black | Reel | 1,000 ft | 612825295235 |

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