



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
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Construction Details

Conductor

Size	Stranding	Material	No. 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. ELCTL [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

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 RVACPKUBK-S1.
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History

Update and Revision:	Revision Number: 0.527 Revision Date: 12-12-2023
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Part Numbers

Variants

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

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