

Part Number: OSP6U

CAT6 Horizontal, 4pr, UTP, PE Jkt, OSP, Gel Fill



Product Description

CAT6 (350MHz), 4-Pair, U/UTP-unshielded, OSP Rated, Premise Horizontal cable, 24 AWG solid bare copper conductors, polyolefin insulation, gel-filled, patented X-spline, polyethylene jacket

Technical Specifications

Product Overview

Environmental Space:	Outdoor
Suitable Applications:	OSP-Outside, Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, 350MHz Category 6, Duct

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4
Conductor Count:		8	
Total Number of Pairs:		4	
Conductor Size:		24 AWG	

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

Outer Jacket Material

Material	Nominal Diameter	Ripcord	Separator Material
LLDPE - Linear Low Density Polyethylene	0.251 in	Yes	Patented X-Spline

Construction and Dimensions

Cabling

Filler
Pat

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]
93.8 Ohm/km	3 %	5 %

Capacitance

Max. Capacitance Unbalance	Nom.Mutual Capacitance
160 pF/100m	15.7 pF/ft

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	45 ns/100m	65 %

High Freq

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)	Max./Min. Fitted Impedance	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.0 dB/100m	74.3 dB	72.3 dB	70.3 dB	67.8 dB	64.8 dB	20.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	35.0 dB
4 MHz	3.8 dB/100m	65.3 dB	63.3 dB	59.5 dB	55.7 dB	52.7 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	53.4 dB	49.7 dB	46.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	16.9 dB
10 MHz	6.0 dB/100m	59.3 dB	57.3 dB	51.4 dB	47.8 dB	44.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	15.0 dB
16 MHz	7.6 dB/100m	56.3 dB	54.3 dB	46.7 dB	43.7 dB	40.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	38.0 dB	10.9 dB
20 MHz	8.5 dB/100m	54.8 dB	52.8 dB	44.3 dB	41.7 dB	38.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	37.0 dB	9.0 dB
25 MHz	9.5 dB/100m	53.3 dB	51.3 dB	41.8 dB	39.8 dB	36.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	36.0 dB	7.0 dB
31.25 MHz	10.7 dB/100m	51.9 dB	49.9 dB	39.2 dB	37.9 dB	34.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm	35.1 dB	5.1 dB
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	30.0 dB	31.8 dB	28.8 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	32.0 dB	
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	22.5 dB	27.8 dB	24.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 15 Ohm	30.0 dB	
155 MHz	25.2 dB/100m	41.5 dB	39.5 dB	14.3 dB	23.9 dB	20.9 dB	18.8 dB	100 ± 22 Ohm	100 ± 15 Ohm	28.1 dB	
200 MHz	29.0 dB/100m	39.8 dB	37.8 dB	8.8 dB	21.7 dB	18.7 dB	18.0 dB	100 ± 22 Ohm	100 ± 15 Ohm	27.0 dB	
250 MHz	32.8 dB/100m	38.3 dB	36.3 dB	3.5 dB	19.8 dB	16.8 dB	17.3 dB	100 ± 32 Ohm	100 ± 15 Ohm	26.0 dB	

Segregation class according EN50174-2:	a
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Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Installation Temp Range:	-40°C To +60°C
Non-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:	-40°C Compliance Per UL 1581
Bulk Cable Weight:	25 lbs/1000ft
Max Recommended Pulling Tension:	25 lbs
Min Bend Radius/Minor Axis:	1.0 in
Min Bend Radius/Installation:	2.5 in

Standards

NEC/(UL) Specification:	N/A
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class E
Data Category:	Category 6
ANSI Compliance:	S-116-732-2013 Category 6, ANSI/NEMA WC-66 Category 6
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 6
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Other Specification:	REA-PE200 Jacket Material, Broadband Outdoor Use ANSI/ICEA S-99-689, Outdoor Use ANSI/ICEA S-56-434

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	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:	No
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2008-09-16
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LSOH, Toxicity Testing

UL voltage rating:	300 V RMS
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color
OSP6U 0101000	Black
OSP6U 0101000	Black

Patent:	https://www.belden.com/resources/patents
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Product Notes

Notes:	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).
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