Product: OSP6AU

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

Product Description

Category 6A Horizontal Premise Cable (500MHz), OSP Rated, 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Inner Polyolefin Jacket, Gel-Filled, Outer Polyolefin Jacket

Technical Specifications

Product Overview

Suitable Applications:	OSP-Outside Plant, Premise Horizontal Cable, Ethernet up to 10GBASE-T, Wi-Fi 6, Wi-Fi 5, PoE++, PoE+, PoE, HDBaseT
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents.

Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
23	Solid	BC - Bare Copper	4

Insulation

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

Bonded-Pair:	No

Inner Jacket Material

Material	Nom. Diameter	Ripcord
PE - Polyethylene	0.260 in	No

Waterblocking:	Gel Filled

Outer Jacket Material

Separator Material	Material	Nom. Diameter	Ripcord
Center Member (Patented X-Spline®), EquiBlock™ Barrier Technology	PE - Polyethylene	0.355 in	Yes

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. DCR Unbalanced Between Pairs [%]	Max. Capacitance Unbalance	Nom. Mutual Capacitance
82 Ohm/km	3%	5%	45 pF/100m	17 pF/ft

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nom. 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. 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	Min. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	74.3 dB	72.3 dB	72.2 dB	70.2 dB	67.8 dB	64.8 dB	20.0 dB	105 +/- 10	115 +/- 15	67.0 dB	67.0 dB	40.0 dB	35.0 dB
4 MHz	3.8 dB/100m	65.3 dB	63.3 dB	61.5 dB	59.5 dB	55.8 dB	52.8 dB	23.0 dB	105 +/- 10	100 +/- 7	67.0 dB	66.2 dB	40.0 dB	23.0 dB

8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	55.4 dB	53.4 dB	49.7 dB	46.7 dB	24.5 dB	100 +/- 22	100 +/- 7	67.0 dB	60.1 dB	40.0 dB	16.9 dB
10 MHz	5.9 dB/100m	59.3 dB	57.3 dB	53.4 dB	51.4 dB	47.8 dB	44.8 dB	25.0 dB	100 +/- 22	100 +/- 7	67.0 dB	58.2 dB	40.0 dB	15.0 dB
16 MHz	7.5 dB/100m	56.2 dB	54.2 dB	48.8 dB	46.8 dB	43.7 dB	40.7 dB	25.0 dB	100 +/- 22	100 +/- 7	67.0 dB	54.1 dB	38.0 dB	10.9 dB
20 MHz	8.4 dB/100m	54.8 dB	52.8 dB	46.4 dB	44.4 dB	41.8 dB	38.8 dB	25.0 dB	100 +/- 22	100 +/- 7	67.0 dB	52.2 dB	37.0 dB	9.0 dB
25 MHz	9.4 dB/100m	53.3 dB	51.3 dB	44.0 dB	42.0 dB	39.8 dB	36.8 dB	24.3 dB	100 +/- 22	100 +/- 7	67.0 dB	50.2 dB	36.0 dB	7.0 dB
31.25 MHz	10.5 dB/100m	51.9 dB	49.9 dB	41.4 dB	39.4 dB	37.9 dB	34.9 dB	23.6 dB	100 +/- 22	100 +/- 7	67.0 dB	48.3 dB	35.1 dB	5.1 dB
62.5 MHz	15.0 dB/100m	47.4 dB	45.4 dB	32.4 dB	30.4 dB	31.9 dB	28.9 dB	21.5 dB	100 +/- 22	100 +/- 7	65.6 dB	42.3 dB	32.0 dB	
100 MHz	19.1 dB/100m	44.3 dB	42.3 dB	25.2 dB	23.2 dB	27.8 dB	24.8 dB	20.1 dB	100 +/- 22	100 +/- 7	62.5 dB	38.2 dB	30.0 dB	
200 MHz	27.6 dB/100m	39.8 dB	37.8 dB	12.2 dB	10.2 dB	21.8 dB	18.8 dB	18.0 dB	100 +/- 22	100 +/- 7	58.0 dB	32.2 dB	27.0 dB	
250 MHz	31.1 dB/100m	38.3 dB	36.3 dB	7.3 dB	5.3 dB	19.8 dB	16.8 dB	17.3 dB	100 +/- 32	100 +/- 7	56.5 dB	30.2 dB	26.0 dB	
300 MHz	34.3 dB/100m	37.1 dB	35.1 dB	2.9 dB	0.9 dB	18.3 dB	15.3 dB	16.8 dB	100 +/- 32	100 +/- 7	55.3 dB	28.7 dB	25.2 dB	
350 MHz	37.2 dB/100m	36.1 dB	34.1 dB			16.9 dB	13.9 dB	16.3 dB	100 +/- 32	100 +/- 7	54.3 dB	27.3 dB	24.6 dB	
400 MHz	40.1 dB/100m	35.3 dB	33.3 dB			15.8 dB	12.8 dB	15.9 dB	100 +/- 32	100 +/- 7	53.5 dB	26.2 dB	24.0 dB	
450 MHz	42.7 dB/100m	34.5 dB	32.5 dB			14.7 dB	11.7 dB	15.5 dB	100 +/- 32	100 +/- 7	52.7 dB	25.1 dB	23.5 dB	
500 MHz	45.3 dB/100m	33.8 dB	31.8 dB			13.8 dB	10.8 dB	15.2 dB	100 +/- 32	100 +/- 7	52.0 dB	24.2 dB	23.0 dB	

Voltage

Non-UL 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.
3.0 in	3.75 in

Max. Pull Tension:	25 lbs
Bulk Cable Weight:	48 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Outdoor, Outdoor, Sunlight Resistance
ICEA Compliance:	S-116-732-2013
ICEA Compliance:	S-56-434
ICEA Compliance:	S-99-689
ICEA Compliance:	S-100-685
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
Cenelec Compliance:	Segregation class according EN50174-2=a
CPR Euroclass:	Fca
European Directive Compliance:	EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	Verified Channel/Category 6A

Part Number

Variants

Item #	Color	UPC
OSP6AU 0101000	Black	612825378266

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. Not Suitable for Direct Burial. 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.

History

Update and Revision:	Revision Number: 0.293 Revision Date: 09-30-2020