



Product: [OSP6AF](#) 

Datatuff Ind. Cat. 6A OSP Cable, 4 Pair, F/UTP, Gel Filled

Product Description

Datatuff Industrial Category 6A Cable (500MHz), OSP Rated, 4 Pair, 23 AWG Solid Bare Copper Conductors, F/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/patents .

Construction Details

Conductor

Size	Stranding	Material	No. of Pairs
23	Solid	BC - Bare Copper	4

Insulation

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

Inner Jacket

Material	Nom. Diameter
PE - Polyethylene	0.26 in (6.6 mm)

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	26 AWG (7x34) TC

Waterblocking: Gel Filled

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Center Member (Patented X-Spline®), EquiBlock™ Barrier Technology	PO - Polyolefin	0.360 in (9.14 mm)	Yes

Overall Cable Diameter (Nominal): 0.360 in (9.14 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km (25 Ohm/1000ft)	45 pF/100m

Delay

Frequency	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	45 ns/100m	64%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	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 [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1	74.3	72.3	72.2	70.2	67.8	64.8	20.0	105 +/- 10	115 +/- 15	67.0	67.0	40.0	35.0
4	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0	105 +/- 10	100 +/- 7	67.0	66.2	40.0	23.0
8	5.3	60.8	58.8	55.4	53.4	49.7	46.7	24.5	100 +/- 22	100 +/- 7	67.0	60.1	40.0	16.9
10	5.9	59.3	57.3	53.4	51.4	47.8	44.8	25.0	100 +/- 22	100 +/- 7	67.0	58.2	40.0	15.0
16	7.5	56.2	54.2	48.8	46.8	43.7	40.7	25.0	100 +/- 22	100 +/- 7	67.0	54.1	38.0	10.9
20	8.4	54.8	52.8	46.4	44.4	41.8	38.8	25.0	100 +/- 22	100 +/- 7	67.0	52.2	37.0	9.0
25	9.4	53.3	51.3	44.0	42.0	39.8	36.8	24.3	100 +/- 22	100 +/- 7	67.0	50.2	36.0	7.0
31.25	10.5	51.9	49.9	41.4	39.4	37.9	34.9	23.6	100 +/- 22	100 +/- 7	67.0	48.3	35.1	5.1
62.5	15.0	47.4	45.4	32.4	30.4	31.9	28.9	21.5	100 +/- 22	100 +/- 7	65.6	42.3	32.0	
100	19.1	44.3	42.3	25.2	23.2	27.8	24.8	20.1	100 +/- 22	100 +/- 7	62.5	38.2	30.0	
200	27.6	39.8	37.8	12.2	10.2	21.8	18.8	18.0	100 +/- 22	100 +/- 7	58.0	32.2	27.0	
250	31.1	38.3	36.3	7.3	5.3	19.8	16.8	17.3	100 +/- 32	100 +/- 7	56.5	30.2	26.0	
300	34.3	37.1	35.1	2.9	0.9	18.3	15.3	16.8	100 +/- 32	100 +/- 7	55.3	28.7	25.2	
350	37.2	36.1	34.1			16.9	13.9	16.3	100 +/- 32	100 +/- 7	54.3	27.3	24.6	
400	40.1	35.3	33.3			15.8	12.8	15.9	100 +/- 32	100 +/- 7	53.5	26.2	24.0	
450	42.7	34.5	32.5			14.7	11.7	15.5	100 +/- 32	100 +/- 7	52.7	25.1	23.5	
500	45.3	33.8	31.8			13.8	10.8	15.2	100 +/- 32	100 +/- 7	52.0	24.2	23.0	

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.
3.0 in (76 mm)	3.75 in (95.3 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	49 lbs/1000ft (73 kg/km)

Standards and Compliance

Environmental Suitability:	Outdoor, Outdoor, Sunlight Resistance, Aerial - When supported by messenger wire
CPR Compliance:	CPR Euroclass: Fca; CPR UKCA Class: Fca
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class EA
CENELEC Compliance:	Segregation class according EN50174-2 = a
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2017-07-10
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. Cable not guaranteed to meet TIA 568.2 specification for delay above lengths of 90m. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. Fully Water Blocked. Suitable for burial or use in outdoor wet locations. Not recommended for Direct Burial applications without additional crush and impact protection. Additional crush and impact protection would include cable armoring, installation in conduit or installation with over top barriers per Belden Technical Bulletin T/8-6. 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

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
OSP6AF 0101000	Black	Reel	1,000 ft	612825378839

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