



Product: [OSP6AF](#)

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

Product Description

Category 6A Horizontal Premise 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 <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .

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

Outer Jacket

Material	Nom. Diameter	Ripcord
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	45 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	45 ns/100m	64%

High Frequency

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 [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
-----------------	-----------------------------------	----------------	------------------	---------------	-----------------	-------------------------	-----------------------------	----------------------------	--------------------------------------	----------------------------	-------------------	-------------------	---------------	------------------

1	2.1 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	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 dB/100m	36.1	34.1			16.9	13.9	16.3	100 +/- 32	100 +/- 7	54.3	27.3	24.6	
400	40.1 dB/100m	35.3	33.3			15.8	12.8	15.9	100 +/- 32	100 +/- 7	53.5	26.2	24.0	
450	42.7 dB/100m	34.5	32.5			14.7	11.7	15.5	100 +/- 32	100 +/- 7	52.7	25.1	23.5	
500	45.3 dB/100m	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

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

Standards and Compliance

Environmental Suitability:	Outdoor, Outdoor, Sunlight Resistance, Aerial - When supported by messenger wire
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. 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: 0.298 Revision Date: 12-12-2023
----------------------	--

Part Numbers

Variants

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

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.