



**Part Number:** OSP6AU

**Multi-Conductor - Category 6A Outside Plant Cable**

**Product Description**

Category 6A (500MHz), 4-Unbonded-Pair, Outside Plant Cable, 23 AWG Solid Bare Copper Conductors, PO Insulation, Patented X-spline Technology, Gel Flooded, Inner Polyolefin Jacket, EquiBlock Barrier Tape, Ripcord, Outer Polyolefin Jacket.

**Technical Specifications**

**Product Overview**

Environmental Space:	Outdoor
Suitable Applications:	OSP-Outside Plant, 10 Gigabit Ethernet, Wireless, Wi-Fi, 100Base TX, 100Base VG ANYLAN, 155ATM, 622ATM, HDBASET, 4K, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio AES51, RS-422, PoE, PoE+

**Physical Characteristics (Overall)**

**Conductor**

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

Conductor Count:	8
Total Number of Pairs:	4

**Insulation**

Material	
PO - Polyolefin	
Bonded-Pair:	N/A

**Color Chart**

Number	Color
1	White & Blue
2	White & Orange
3	White & Green
4	White & Brown

**Inner Jacket Material**

Material	Nominal Diameter	Ripcord
PO - Polyolefin	0.260 in	No

**Outer Jacket Material**

Material	Nominal Diameter	Ripcord
LLDPE - Linear Low Density Polyethylene	0.355 in	Yes

**Electrical Characteristics**

**Conductor DCR**

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]
82 Ohm/km	3.0 %	5.0 %

**Capacitance**

Max. Capacitance Unbalance	Nom.Mutual Capacitance
----------------------------	------------------------

45 pF/100m	17 pF/ft
------------	----------

#### Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	45 ns/100m	64.0 %

#### 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	

Segregation class according EN50174-2: a

#### Voltage

<b>UL Voltage Rating</b>
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:	48 lbs/1000ft
Max Recommended Pulling Tension:	25 lbs
Min Bend Radius During Installation:	3.75 in
Min Bend Radius/Minor Axis:	3.0 in

#### Standards

NEC/(UL) Specification:	N/A
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class EA
CPR Euroclass:	Fca
Data Category:	Category 6A

ANSI Compliance:	S-116-732-2013 Category 6A, ANSI/NEMA WC-66 Category 6A
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 6A
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Other Specification:	Outdoor Use ANSI/ICEA S-56-434, Broadband Outdoor Use ANSI/ICEA S-99-689, Verified Channel/Category 6A

## Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	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):	2015-12-15
CA Prop 65 (CJ for Wire & Cable):	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
--------------------	-----------

## Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

## Part Number

### Variants

Item #	Color	UPC
OSP6AU 0101000	Black	612825378266

Patent:	<a href="http://www.belden.com/p">http://www.belden.com/p</a>
---------	---

## Product Notes

Notes:	Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. Not Suitable for Direct Burial.
--------	--

## History

Update and Revision:	Revision Number: 0.235 Revision Date: 08-22-2019
----------------------	--

© 2019 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.