

OSP6AU Multi-Conductor - Category 6A Outside Plant Cable



For more Information
please call

1-800-Belden1



General Description:

CAT6A (500 MHz), 4 Pair, U/UTP-Unshielded, Outdoor OSP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented X-Spline, Gel-Filled, Polyolefin Inner Jacket, EquiBlock™ Technology, Ripcord, UV-Resistant LLDPE Jacket

Usage (Overall)

Suitable Applications: 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 Plus

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

Total Number of Conductors: 8

Insulation

Insulation Material:

Insulation Material
PO - Polyolefin

Separator

Separator Material: Patented X-spline Central Member

Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)	Dia. (mm)
Patent Pending EquiBlock Barrier Tape	Tri-Laminate	Polyester / Foil / Polyester	100.000	6.604

Inner Jacket

Inner Jacket Material:

Layer #	Inner Jacket Material	Nom Wall (mm)	Nom. Dia. (mm)
1	Black LLDPE	0.508	6.604

Inner Jacket Ripcord: No

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Black PO - Polyolefin

Outer Jacket Diameter:

Nom. Dia. (mm)
9.017

Outer Jacket Ripcord: Yes

Pair

Pair Color Code Chart:

Number	Color
1	White/Blue

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2	White/Orange
3	White/Green
4	White/Brown

Mechanical Characteristics (Overall)

Storage Temperature Range:	-40°C To +75°C
Installation Temperature Range:	-40°C To +60°C
Operating Temperature Range:	-40°C To +75°C
Non-UL Temperature Rating:	75C
Bulk Cable Weight:	71.434 Kg/Km
Max. Recommended Pulling Tension:	177.928 N
Min. Bend Radius/Minor Axis:	76.200 mm
Min. Bend/Installation:	95.250 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II):	Yes
IEEE Specification:	POE per IEEE 802.3af & POE+ per IEEE 802.3at-2009
Other Standards:	ISO/IEC 11801 ed 2 Amendment 2:2010 Class EA
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/15/2016
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 6A - TIA 568.C.2
ANSI Specification:	ANSI/ICEA S-99-689 Broadband Outdoor Use, ANSI/ICEA standard S-116-732-2013 Category 6A
Other Specification:	ANSI/ICEA S-56-434 Outdoor Use

Applicable Patents:

Country
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Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	No
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Plenum Number: 10GXS13

Non-Plenum Number: 10GXS12

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

55.777

Maximum Capacitance Unbalance (pF/100 m): 45

Nominal Velocity of Propagation:

VP (%)

65.000

Maximum Delay:

Delay (ns/100 m)

537.000

Typical Delay Skew:

Delay Skew (ns/m)

98.430

Max. Delay Skew:

Delay Skew (ns/100 m)

45.000

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

8.200

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

Description	DCR Unbalance @ 20°C (%)
Conductor-to-Conductor	3.000
Pair-to-Pair	7.500

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. PSNEXT (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.100	72.3	70.2	20.000
4	3.800	63.3	59.5	23.000
8	5.300	58.8	53.4	24.500
10	5.900	57.3	51.4	25.000
16	7.500	54.2	46.8	25.000
20	8.400	52.8	44.4	25.000
25	9.400	51.3	42.0	24.300
31.25	10.500	49.9	39.4	23.600
62.5	15.000	45.4	30.4	21.500
100	19.100	42.3	23.2	20.100
200	27.600	37.8	10.2	18.000
250	31.100	36.3	5.3	17.300
300	34.300	35.1	0.9	16.800
350	37.200	34.1		16.300
400	40.100	33.3		15.900
450	42.700	32.5		15.500
500	45.300	31.8		15.200

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. PSACRF (dB)
1	100 ± 15	105 ± 10	64.8
4	100 ± 15	100 ± 15	52.8

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8	100 ± 15	100 ± 15	46.7
10	100 ± 15	100 ± 15	44.8
16	100 ± 15	100 ± 15	40.7
20	100 ± 15	100 ± 15	38.8
25	100 ± 15	100 ± 15	36.8
31.25	100 ± 15	100 ± 10	34.9
62.5	100 ± 15	100 ± 10	28.9
100	100 ± 15	100 ± 10	24.8
200	100 ± 22	100 ± 10	18.8
250	100 ± 32	100 ± 10	16.8
300	100 ± 32	100 ± 10	14.3
350	100 ± 32	100 ± 10	13.9
400	100 ± 32	100 ± 10	12.8
450	100 ± 32	100 ± 10	11.7
500	100 ± 32	100 ± 10	10.8

Premise Cable Electrical Table 4:

Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAACRF (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	67.000	67.000	40.000	35.000
4.000	67.000	66.200	40.000	33.000
8.000	67.000	60.100	40.000	16.900
10.000	67.000	58.200	40.000	15.000
16.000	67.000	54.100	38.000	10.900
20.000	67.000	52.200	37.000	9.000
25.000	67.000	50.200	36.000	7.000
31.250	67.000	48.300	35.100	5.500
62.500	65.600	42.300	32.000	
100.000	62.500	38.200	30.000	
200.000	59.600	32.200	27.000	
250.000	58.000	30.200	26.000	
300.000	55.300	28.700	25.200	
350.000	54.300	27.300	24.600	
400.000	53.500	26.200	24.000	
450.000	54.300	25.100	23.500	
500.000	52.000	24.200	23.000	

Notes (Overall)

Notes: Third party channel verified to TIA/EIA-568-C.2, Category 6A. Print Includes Descending Footage / Meter Markings. -40C Cold Bend Compliance Per UL1581. Reference T8-6-T8-6 for Burial. Water Penetration per GR 421-CORE para. 4.3.5.1. and ANSI/ICEA S-107-704 Para. 8.2.1.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
OSP6AU 0101000	1,000 FT	53.000 LB	BLACK		CAT6A 4PR U/UTP OSP REEL

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