

## OSP6AF Multi-Conductor - Category 6A Outside Plant F/UTP Cable



For more Information  
please call

1-800-Belden1



### General Description:

CAT6A (500MHz), 4 Pair, F/UTP-Foil Shielded, OSP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented X-Spline, Polyolefin Inner Jacket, Overall Foil Screen with Drain Wire, Ripcord, Polyolefin Outer Jacket, Flooded

### Usage (Overall)

**Suitable Applications:** Outside Plant Cable, 10 Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, PoE, PoE+

### 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
Polyolefin

#### Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)	Dia. (in.)
Beldfoil	Bi-Laminate	Polyester / Foil	100.000	0.260

#### Inner Jacket

Inner Jacket Material:

Inner Jacket Material
LLDPE

**Inner Jacket Ripcord:** Yes

#### Outer Shield

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
26	7 x 34	Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
LLDPE

Outer Jacket Diameter:

Nom. Dia. (in.)
0.360

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Cabling Separator Material:** Patented X-Spline Center Member

#### Pair

Pair Color Code Chart:

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

### Mechanical Characteristics (Overall)

## OSP6AF Multi-Conductor - Category 6A Outside Plant F/UTP Cable

Storage Temperature Range:	-40°C To +75°C
Installation Temperature Range:	-20°C To +60°C
Operating Temperature Range:	-40°C To +60°C
Bulk Cable Weight:	49 lbs/1000 ft.
Max. Recommended Pulling Tension:	45 lbs.
Min. Bend Radius/Minor Axis:	1.200 in.
Min. Bend/Installation:	3 in.

### 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
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):	03/07/2011
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:	ISO/IEC 11801:2011 Amendment 2.2 Class EA
ANSI Specification:	ANSI/TIA 568-C.2 Category 6A, ANSI/ICEA S-116-732-2013 Category6A
Other Specification:	ANSI/ICEA S-56-434 Outdoor Use, ANSI/ICEA S-99-689 Broadband Outdoor Use

#### Applicable Patents:

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

#### Suitability

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

#### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	10GX53F
Non-Plenum Number:	10GX52F

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/ft)
17.000

Maximum Capacitance Unbalance (pF/100 m): 90

#### Nominal Velocity of Propagation:

VP (%)
64.000

#### Maximum Delay:

Delay (ns/100 m)
538 @ 100MHz

#### Max. Delay Skew:

Delay Skew (ns/100 m)
45.000

#### Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
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## OSP6AF Multi-Conductor - Category 6A Outside Plant F/UTP Cable

8.200

Max. Operating Voltage - UL:

**Voltage**  
300 V RMS

### 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	44.5	25.000
25	9.400	51.3	42.0	25.000
31.25	10.500	49.9	39.4	25.000
62.5	15.000	45.4	30.4	25.000
100	19.100	43.3	23.2	25.000
200	27.600	37.8	1102	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	N/A	16.300
400	40.100	33.3	N/A	15.900
450	42.700	32.5	N/A	15.530
500	45.300	31.8	N/A	15.200

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
1	100 ± 15	105 ± 10	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.8
8	100 ± 15	100 ± 15	49.7	46.7
10	100 ± 15	100 ± 15	47.8	44.8
16	100 ± 15	100 ± 15	43.7	40.7
20	100 ± 15	100 ± 15	41.8	38.8
25	100 ± 15	100 ± 15	39.8	36.8
31.25	100 ± 15	100 ± 10	37.9	34.9
62.5	100 ± 15	100 ± 10	31.9	28.9
100	100 ± 15	100 ± 10	27.8	24.8
200	100 ± 22	100 ± 10	21.8	18.8
250	100 ± 32	100 ± 10	19.8	16.8
300	100 ± 32	100 ± 10	18.3	14.3
350	100 ± 32	100 ± 10	16.9	13.9
400	100 ± 32	100 ± 10	15.8	12.8
450	100 ± 32	100 ± 10	14.7	11.7
500	100 ± 32	100 ± 10	13.8	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	23.000
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	
62.500	67.000	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	25.300	
350.000	54.300	27.300	24.600	
400.000	53.500	26.200	24.000	
450.000	52.700	25.100	23.500	
500.000	52.000	24.200	23.000	

### Notes (Overall)

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**Notes:** Third party channel verified to and meets component requirements of IIA/EIA-568-C.2, Category 6A, Print Includes Descending Footage / Meter Markings -40C Cold Bend Compliance Per UL1581, Reference T/8-6 for Burial, Water Penetration per GR 421-CORE para. 4.3.5.1. and per ANSI/ICEA S-107-704 Para. 8.2.1

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
OSP6AF 0101000	1,000 FT	54.000 LB	BLACK		CAT6A 4PR F/UTP OSP REEL

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