



Part Number: 7860ENH.001000

Category 6 Bonded-Pair ScTP Cable

Product Description

Cat. 6 (250MHz), 4-Pair, F/UTP Foil shielded, Premise Horizontal Cable, 23 AWG solid bare copper conductors, Polyethylene insulation, Beldfoil® shield, AWG 26 solid tinned copper drainwire, LSZH jacket

Product Specifications

AG.Filter Attributes

Total Number of Conductors:	8
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Application

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6 and 5e applications, such as 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM
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Cabling1

Description@Cabling1:	4 pairs twisted together covered with a polyester foil
Filler@Cabling1:	Cross Web of Polyolefin

Conductor

Total Number of Pairs:	4
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Technical Specifications

Applicable Patents

Patent:	http://www.belden.com/p
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Bend Radius

Min Bend Radius During Installation:	58 mm
Min Bend Radius During Operation:	29 mm

CCB-Sub-Material

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	9 MPa

Coupling Attenuation

Coupling Attenuation Class:	Type II
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EMEA Standard

CENELEC Compliance:	EN 50173-1 (2011)
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General Electrical Parameters

General Electrical Parameters Header:	Reference standard: ISO/IEC 61156 - 5 ed. 2.0 (2009)
Min Insulation Resistance:	5000 MOhm*km
Dielectric Strength Cond-Cond (2 sec.):	2.5 kV DC
Dielectric Strength Cond-Screen (2 sec.):	2.5 kV DC

Global Standard

ISO/IEC Compliance:	ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
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History

Revision Number:	4
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North American Standard

ANSI Compliance:	ANSI/TIA/EIA 568-B.2-1 (2002)
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Safety

ISO/IEC Flammability:	IEC 60332-1
Amt of Halogen Acid Gas; Max Conductivity:	10 μ S/mm
Amt of Halogen Acid Gas; Min pH:	4.3
Smoke Density; Min Transmittance:	60%
Amt of Halogen IEC 60754-1 /EN50267-1:	Zero

Use

Burning Load:	745 kJ/m
Max Recommended Pulling Tension:	80 N

Impedance:

Nominal Characteristic Impedance

100 Ohm

Conductor DCR:

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]	Max. DCR Unbalanced Within Pair [%]
95 Ohm/km	4 %	2 Ohm

Color Chart 1:

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

Delay:

Max. Delay Skew	Min. Velocity of Propagation
40 ns/100m	60 %

Voltage:

Voltage Rating [V]
72 V

Current:

Max. Recommended Current [A]
1.5 A

High Freq:

Element	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]	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	72.3 dB	73.2 dB	70.2 dB	70 dB	67 dB	20 dB	40 dB	35 dB	
4 MHz	3.8 dB/100m	66.3 dB	63.3 dB	62.4 dB	59.4 dB	58 dB	55 dB	23 dB	34 dB	23 dB	
10 MHz	6 dB/100m	60.3 dB	57.3 dB	54.3 dB	51.3 dB	50 dB	47 dB	25 dB	30 dB	15 dB	
16 MHz	7.6 dB/100m	57.2 dB	54.2 dB	49.6 dB	46.6 dB	45.9 dB	42.9 dB	25 dB	28 dB	10.9 dB	
20 MHz	8.5 dB/100m	55.8 dB	52.8 dB	47.3 dB	44.3 dB	44 dB	41 dB	25 dB	27 dB	9 dB	
31.2 MHz	10.7 dB/100m	52.9 dB	49.9 dB	42.1 dB	39.1 dB	40.1 dB	37.1 dB	23.6 dB	25.1 dB	5.1 dB	
62.5 MHz	15.5 dB/100m	48.4 dB	45.4 dB	32.9 dB	29.9 dB	34.1 dB	31.1 dB	21.5 dB	22 dB		
100 MHz	19.9 dB/100m	45.3 dB	42.3 dB	25.4 dB	22.4 dB	30 dB	27 dB	20.1 dB	20 dB		
155 MHz	25.3 dB/100m	42.4 dB	39.4 dB	17.1 dB	14.1 dB	26.2 dB	23.2 dB	18.8 dB	18.1 dB		
200 MHz	29.1 dB/100m	40.8 dB	37.8 dB	11.6 dB	8.6 dB	24 dB	21 dB	18 dB	17 dB		
250 MHz	33 dB/100m	39.3 dB	36.3 dB	6.3 dB	3.3 dB	22 dB	19 dB	17.3 dB	16 dB		

); Limits below 4MHz are for information only.

Transfer Impedance:

Frequency [MHz]	Description	Transfer Impedance
1 Mhz	Grade 2	Max.50 mOhm/m
10 Mhz		Max. 100 mOhm/m
30 Mhz		Max. 200 mOhm/m
100 Mhz		Max. 1000 mOhm/m

Capacitance:

Max. Capacitance Unbalance	Max. Mutal Capacitance
1,600 pF/m	56 pF/m

Insulation:

Element	Type	Material	Nominal Diameter
Individual pair		Dielectric	Polyethylene
			1.35 mm

Outerjacket 1:

Material	Color	Nominal Diameter	Diameter +/- Tolerance
FRNC / LSZH		Grey or Blue	7.3 mm
			0.3 mm

Conductor:

Element	AWG	Stranding	Material	No. of Pairs	
Individual pair		23	Solid	Bare copper	4

Other Electrical Information:

Min Insulation Resistance	5000 MOhm*km
Dielectric Strength Cond-Cond (2 sec.)	2.5 kV DC
Dielectric Strength Cond-Screen (2 sec.)	2.5 kV DC

Outershield 1:

Type	Material	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Position
Tape	Aluminum / Polyester	100 %	Solid tinned copper	26	Over foil
Aluminum facing outside in contact with drain wire in in					

Coupling Attenuation:

Element	Coupling Attenuation [dB]
Type II V dB	
Type II	

Product Variants

Part Number	Color	Put-Up Type	Length
7860ENH.001000	GRAY	Reel	1000 m
7860ENH.002000	GRAY	Reel	2000 m
7860ENH.002100	GRAY	Reel	2100 m
7860ENH.00305	GRAY	Reel	305 m
7860ENH.00500	GRAY	Reel	500 m
7860ENH.00B100	GRAY	Flat Box	100 m
7860ENH.011000	BLUE, RAL 5015	Reel	1000 m
7860ENH.01500	BLUE, RAL 5015	Reel	500 m
7860ENH.01B100	BLUE, RAL 5015	Flat Box	100 m
7860ENH.02500	PURPLE	Reel	500 m
7860ENH.03500	BLACK, RAL 9005	Reel	500 m
7860ENH.04500	YELLOW	Reel	500 m
7860ENH.001000	GRAY	Reel	1000 m
7860ENH.001000	GRAY	Reel	305 m
7860ENH.001000	GRAY	Reel	500 m
7860ENH.001000	BLUE, RAL 5015	Reel	1000 m
7860ENH.001000	BLUE, RAL 5015	Reel	500 m
7860ENH.001000	Black	Reel	500 m
7860ENH.001000			

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