Part Number: 10GXE02.06500

Enhanced Category 6A Nonbonded-Pair ScTP Cable

Product Description

CAT6A (625MHz), 4-Pair, S/FTP shielded, Premise Horizontal Cable, 23 AWG Solid Bare Copper conductors, Foam Polyolefin insulation, each pair with Beldfoil® shield, tinned copper braid shield (30%), LSZH jacket

Technical Specifications

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

Construction and Dimensions

Conductor:

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

Total Number of Conductors:	8
Total Number of Pairs:	4
Min Elongation at Breakof Conductors:	10 %

Insulation:

Element	Type	Material	Nominal Diameter
Individual shielded pair	Dielectric	Foamed Polyethylene	1.32 mm

Min Elongation at Breakof Insulation:	100 %

Color Chart 1:

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

Innershield:

Element	Type	Material	Coverage [%]
Individual shielded pair	Tape	Aluminum / Polyester	100 %
Aluminum facing outside			

Outershield 1:

Type	Material	Min. Coverage [%]
Braid	Tinned copper	30 %

Outerjacket 1:

Material	Nominal Diameter	Diameter +/- Tolerance	Ripcord
FRNC / LSZH	7.0 mm	0.3 mm	Yes

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

Electrical Characteristics

Conductor DCR:

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

Capacitance:

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

Min Insulation Resistance:	5000 MOhm*km

Impedance:

Nominal Characteristic Impedance
100 Ohm

Delay:

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
45 ns/100m	77 %

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. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
	1 MHz	2.1 dB/100m	75.3 dB	72.3 dB	73.2 dB	70.2 dB	68 dB	65 dB	20 dB	67 dB	67 dB	40 dB	35 dB
	4 MHz	3.8 dB/100m	66.3 dB	63.3 dB	62.5 dB	59.5 dB	56 dB	53 dB	23 dB	67 dB	66.2 dB	34 dB	23 dB
	10 MHz	5.9 dB/100m	60.3 dB	57.3 dB	54.4 dB	51.4 dB	48 dB	45 dB	25 dB	67 dB	58.2 dB	30 dB	15 dB
	16 MHz	7.5 dB/100m	57.2 dB	54.2 dB	49.8 dB	46.8 dB	43.9 dB	40.9 dB	25 dB	67 dB	54.1 dB	28 dB	10.9 dB
	31.2 MHz	10.5 dB/100m	52.9 dB	49.9 dB	42.4 dB	39.4 dB	38.1 dB	35.1 dB	23.6 dB	67 dB	48.3 dB	25.1 dB	5.1 dB
	62.5 MHz	15 dB/100m	48.4 dB	45.4 dB	33.4 dB	30.4 dB	32.1 dB	29.1 dB	21.5 dB	65.6 dB	42.3 dB	22 dB	
	100 MHz	19.1 dB/100m	45.3 dB	42.3 dB	26.2 dB	23.2 dB	28 dB	25 dB	20.1 dB	62.5 dB	38.2 dB	20 dB	
	125 MHz	21.5 dB/100m	43.8 dB	40.8 dB	22.3 dB	19.3 dB	26.1 dB	23.1 dB	19.4 dB	61 dB	36.3 dB	19 dB	
	200 MHz	27.6 dB/100m	40.8 dB	37.8 dB	13.2 dB	10.2 dB	22 dB	19 dB	18 dB	58 dB	32.2 dB	17 dB	
	250 MHz	31.1 dB/100m	39.3 dB	36.3 dB	8.3 dB	5.3 dB	20 dB	17 dB	17.3 dB	56.5 dB	30.2 dB	16 dB	
	300 MHz	34.3 dB/100m	38.1 dB	35.1 dB	3.9 dB	0.9 dB	18.5 dB	15.5 dB	17.3 dB	55.3 dB	28.7 dB		
	500 MHz	45.3 dB/100m	34.8 dB	31.8 dB	-10.4 dB	-13.4 dB	14 dB	11 dB	17.3 dB	52 dB	24.2 dB		
	625 MHz	51.2 dB/100m	33.4 dB	30.4 dB	-17.8 dB	-20.8 dB	12.1 dB	9.1 dB	17.3 dB	50.6 dB	22.3 dB		

): Limits below 4MHz and at 625MHz are for information only.

Current:

Max. Recommended Current [A]
1.5 A

Voltage:

Voltage Rating [V]
72 V

Coupling Attenuation:

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

Coupling Attenuation Class:	Type II

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

Use

Burning Load:	500 kJ/m
Max Recommended Pulling Tension:	85 N

Safety

ISO/IEC Flammability:	IEC 60332-1

Temperature Range

Installation Temp Range:	0 to +50 °C
Operating Temp Range:	-30 to +60 °C

Mechanical Characteristics

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

Standards

ISO/IEC Compliance:	ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
ANSI Compliance:	ANSI/TIA/EIA 568-B.2-1 (2002)
CENELEC Compliance:	EN 50173-1 (2011)

History

Revision Number:	3

Product Variants

Part Number	Color	Put-Up Type	Length
10GXE02.06500	BLUE, RAL 5015	Reel	500 m
10GXE02.07500	PURPLE, RAL 4005	Reel	500 m
10GXE02.06500	GRAY	Reel	100 m
10GXE02.08500	GRAY	Reel	500 m
10GXE02.06500	BLUE	Reel	500 m
10GXE02.06500	PURPLE	Reel	500 m
10GXE02.06500	GRAY	Reel	500 m
10GXE02.06500			

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