



## 10GXE01

**Part Number:** 10GXE01

Enhanced Category 6A Nonbonded-Pair ScTP Cable

## Product Description

CAT6A (625MHz), 4-Pair, F/FTP shielded, Premise Horizontal Cable, 23 AWG Solid Bare Copper conductors, Foam Polyolefin insulation, each pair with Beldfoil® shield, AWG 26 solid tinned copper drainwire, overall Beldfoil® shield, LSZH jacket

## Product Specifications

### Application

<b>Application 1:</b>	Horizontal and building backbone cable
<b>Application 2:</b>	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

### Cabling<sup>1</sup>

<b>Cabling<sup>1</sup>, Description:</b>	4 pairs twisted together
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## Technical Specifications

### Bend Radius

<b>Min Bend Radius During Installation:</b>	57 mm
<b>Min Bend Radius During Operation:</b>	29 mm

### CCB-Sub-Material

<b>Min Elongation at Breakof Conductors:</b>	10 %
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Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 MPa
Min Tensile Strength of Jacket:	9 lbs

## EMEA Standard

CENELEC Compliance:	EN 50173-1 (2011)
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## Environmental Characteristics

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

## General Electrical Parameters

General Electrical Parameters Header:	Reference standard: ISO/IEC 61156-5 ed. 2.0 (2009)
Min Insulation Resistance:	5000 mOhm/1000ft
Dielectric Strength Cond-Cond (2 sec):	2.5 kV DC
Dielectric Strength Cond-Screen (2 sec):	2.5 kJ/ft

## Global Standard

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

Revision Date:	40961
Revision Number:	2

## 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; MaxConductivity:	10 µS/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

<b>Burning Load:</b>	515 kJ/m
<b>Max Recommended Pulling Tension:</b>	79 lbs

### Impedance:

Nominal Characteristic Impedance
100 mOhm/ft

### Conductor DCR:

Max. Conductor DCR	Max DCR Unbalanced Between Pairs	Max. DCR Unbalanced Within Pair
95 Ohm/100m	4 %	2 Ohm

### Color Chart 1:

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

### Delay:

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

### Voltage:

Voltage Rating
72 dB

### Current:

Max. Recommended Current
1.5 A

### High Freq:

Element	Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT	Min. PSNEXT	Min. ACR	Min. PSACR	Min. ACRF (ELFEXT)	Min. PSACRF (PSELFEXT)	Min. RL (Return Loss)	Min. PSANEXT	Min. PSAACR	Min. RFTCL	Min. ELTCTL
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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.

#### Innershield:

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

#### 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
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100 Mhz		Max. 1000 mOhm/m
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**Capacitance:**

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

**Insulation:**

Element	Type	Material	Nominal Diameter
Individual pair	Dielectric	Polyethylene	1.32 mm

**Outerjacket 1:**

Material	Nominal Diameter	Diameter +/- Tolerance	Ripcord
FRNC / LSNH	7.1 mm	0.3 mm	Yes

**Conductor:**

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

**Outersheild 1:**

Type	Material	Coverage	Drainwire Material	Drainwire AWG	Drainwire Position
Tape	Aluminum / Polyester	100 %	Solid tinned copper	26	Between inner and outer foil

Aluminum facing inside in

**Coupling Attenuation:**

Coupling Attenuation
Type II V

**Product Variants**

Part Number	Color	Put-Up Type	Length
10GXE01.06500	BLUE, RAL 5015	Reel	500 m
10GXE01.07500	PURPLE, RAL 4005	Reel	500 m
10GXE01.08500	GRAY	Reel	500 m

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