



Product: [10GXS24](#)

CAT6A 10GX Small Diameter, 4pr, UTP, LSZH Jkt, LSZH

Product Description

Category 6A Enhanced (625 MHz), 4 Pair, U/UTP-Unshielded, Zero Halogen, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented EquiSpline™ & EquiBlock™ Technologies, Ripcord, LSZH Jacket

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, 10 Gigabit Ethernet, Wireless, WIFI, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, PoE, PoE Plus
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents .

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
23	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material
PO - Polyolefin

Bonded-Pair:	N/A
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Color Chart

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

Outer Jacket

Material	Material Trade Name	Nominal Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Haloarrest®	0.275 in	Yes

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]
82 Ohm/km	3.0 %	5.0 %

Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
45 pF/100m	17 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance	Min. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	73.2 dB	74.8 dB	20.0 dB	100 ± 15 Ohm	105 ± 10 Ohm	75.0 dB	77.0 dB	40.0 dB	35.0 dB
4 MHz	3.8 dB/100m	66.3 dB	62.5 dB	62.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	76.2 dB	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	61.8 dB	56.5 dB	56.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	70.1 dB	40.0 dB	16.9 dB
10 MHz	5.9 dB/100m	60.3 dB	54.4 dB	54.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	68.2 dB	40.0 dB	15.0 dB
16 MHz	7.4 dB/100m	57.2 dB	49.8 dB	50.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	64.1 dB	38.0 dB	10.9 dB
20 MHz	8.3 dB/100m	55.8 dB	47.5 dB	48.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	62.2 dB	37.0 dB	9.0 dB
25 MHz	9.3 dB/100m	54.3 dB	45.0 dB	46.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	60.2 dB	36.0 dB	7.0 dB
31.25 MHz	10.4 dB/100m	52.9 dB	42.5 dB	44.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 10 Ohm	75.0 dB	58.3 dB	35.1 dB	5.1 dB
62.5 MHz	14.8 dB/100m	48.4 dB	33.6 dB	38.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 10 Ohm	73.6 dB	52.3 dB	32.0 dB	
100 MHz	18.9 dB/100m	45.3 dB	26.4 dB	34.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 10 Ohm	70.5 dB	48.2 dB	30.0 dB	
200 MHz	27.0 dB/100m	40.8 dB	13.8 dB	28.8 dB	18.0 dB	100 ± 22 Ohm	100 ± 10 Ohm	66.0 dB	42.2 dB	27.0 dB	
250 MHz	30.4 dB/100m	39.3 dB	9.0 dB	26.8 dB	17.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	64.5 dB	40.2 dB	26.0 dB	
300 MHz	33.5 dB/100m	38.1 dB	4.6 dB	25.3 dB	16.8 dB	100 ± 32 Ohm	100 ± 10 Ohm	63.3 dB	38.7 dB	25.2 dB	
350 MHz	36.3 dB/100m	37.1 dB	0.8 dB	23.9 dB	16.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.3 dB	37.3 dB	24.6 dB	
400 MHz	39.0 dB/100m	36.3 dB		22.8 dB	15.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	61.5 dB	36.2 dB	24.0 dB	
450 MHz	41.5 dB/100m	35.5 dB		21.7 dB	15.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	60.7 dB	35.1 dB	23.5 dB	
500 MHz	43.9 dB/100m	34.8 dB		20.8 dB	15.2 dB	100 ± 32 Ohm	100 ± 10 Ohm	60.0 dB	34.2 dB	23.0 dB	
550 MHz	46.2 dB/100m	33.2 dB		20.0 dB	14.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	59.4 dB	33.4 dB		
600 MHz	48.4 dB/100m	32.6 dB		19.2 dB	14.7 dB	100 ± 32 Ohm	100 ± 10 Ohm	58.8 dB	32.6 dB		
625 MHz	49.5 dB/100m	32.4 dB		18.9 dB	14.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	58.6 dB	32.3 dB		
750 MHz	54.7 dB/100m	32.2 dB		17.3 dB	14.0 dB			57.4 dB	30.7 dB		
860 MHz	58.9 dB/100m	31.3 dB		16.1 dB	13.6 dB			56.5 dB	29.5 dB		

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Installation Temperature Range:	0°C To +50°C
Non-UL Temp Rating:	75°C
Storage Temperature Range:	-20°C To +75°C
Operating Temperature Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	35 lbs/1000ft
Max. Pull Tension:	25 lbs
Min. Bend Radius/Minor Axis:	1.25 in

Standards

ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
ANSI Compliance:	S-116-732-2013 Category 6A, ANSI/NEMA WC-66 Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	Yes
EU CE Mark:	No
EU REACH SVHC Compliance (yyyy-mm-dd):	2019-01-15

Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

Plenum/Non-Plenum

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

Related Part Numbers

Non-Plenum Number:	10GXS12
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Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 625 MHz are for Engineering Information Only. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0.
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History

Update and Revision:	Revision Number: 0.104 Revision Date: 04-29-2024
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