



Product: [10GX44](#)

CAT6A 10GX Bonded-Pair, 4pr, UTP, LSZH Jkt

Product Description

CAT6A (625MHz), 4-Bonded-Pair, U/UTP-unshielded, Zero Halogen, Premise Horizontal cable, 23 AWG solid bare copper conductors, polyolefin insulation, patented Double-H spline, ripcord, LSZH jacket

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 10G Category 6A, PoE
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

Insulation

Material
PO - Polyolefin

Bonded-Pair: Yes

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

Outer Shield	
Material	
No Shield	

Material	Nominal Diameter	Separator Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.295 in	Double H Cross-Web (Patented RoundFlex®)

Electrical Characteristics

Conductor DCR	
Max. DCR Unbalance	Nominal Conductor DCR
2 %	7.5 Ohm/1000ft

Capacitance
Nom.Mutual Capacitance
17 pF/ft

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]	Typical Delay Skew
100 MHz	538 ns/100m	45 ns/100m	64%	35 ns/100m

High Frequency

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]	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	73.3 dB	73.2 dB	71.2 dB	70.8 dB	68.8 dB	20 dB	100 ± 15 Ohm	100 ± 15 Ohm	67 dB	67 dB	48 dB	43 dB
4 MHz	3.8 dB/100m	66.3 dB	64.3 dB	62.5 dB	60.5 dB	58.8 dB	56.8 dB	23 dB	100 ± 15 Ohm	100 ± 10.4 Ohm	67 dB	67 dB	48 dB	41 dB
8 MHz	5.3 dB/100m	61.8 dB	59.8 dB	56.4 dB	54.4 dB	52.7 dB	50.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 8 Ohm	67 dB	61.1 dB	48 dB	24.9 dB
10 MHz	5.9 dB/100m	60.3 dB	58.3 dB	54.4 dB	52.4 dB	50.8 dB	48.8 dB	25 dB	100 ± 15 Ohm	100 ± 7.3 Ohm	67 dB	59.2 dB	48 dB	23 dB
16 MHz	7.5 dB/100m	57.2 dB	55.2 dB	49.8 dB	47.8 dB	46.7 dB	44.7 dB	25 dB	100 ± 15 Ohm	100 ± 5 Ohm	67 dB	55.1 dB	46 dB	18.9 dB
20 MHz	8.4 dB/100m	55.8 dB	53.8 dB	47.4 dB	45.4 dB	44.8 dB	42.8 dB	25 dB	100 ± 15 Ohm	100 ± 5 Ohm	67 dB	53.2 dB	45 dB	17 dB
25 MHz	9.4 dB/100m	54.3 dB	52.3 dB	45 dB	43 dB	42.8 dB	40.8 dB	25 dB	100 ± 15 Ohm	100 ± 5 Ohm	67 dB	51.2 dB	44 dB	15 dB
31.25 MHz	10.5 dB/100m	52.9 dB	50.9 dB	42.4 dB	40.4 dB	40.9 dB	38.9 dB	25 dB	100 ± 15 Ohm	100 ± 5 Ohm	67 dB	49.3 dB	43.1 dB	
62.5 MHz	15 dB/100m	48.4 dB	46.4 dB	33.4 dB	31.4 dB	34.9 dB	32.9 dB	25 dB	100 ± 15 Ohm	100 ± 5 Ohm	66.6 dB	43.3 dB	40 dB	
100 MHz	19.1 dB/100m	45.3 dB	43.3 dB	26.2 dB	24.2 dB	30.8 dB	28.8 dB	25 dB	100 ± 15 Ohm	100 ± 5 Ohm	63.5 dB	39.2 dB	38 dB	
200 MHz	27.6 dB/100m	40.8 dB	38.8 dB	13.2 dB	11.2 dB	24.8 dB	22.8 dB	21 dB	100 ± 22 Ohm	100 ± 5 Ohm	59 dB	33.2 dB	35 dB	
250 MHz	31.1 dB/100m	39.3 dB	37.3 dB	8.3 dB	6.3 dB	22.8 dB	20.8 dB	20.5 dB	100 ± 32 Ohm	100 ± 5 Ohm	57.5 dB	31.2 dB	34 dB	
300 MHz	34.3 dB/100m	38.1 dB	36.1 dB	3.9 dB	1.9 dB	21.3 dB	19.3 dB	20.1 dB	100 ± 32 Ohm	100 ± 5 Ohm	56.3 dB	29.7 dB	33.2 dB	
350 MHz	37.2 dB/100m	37.1 dB	35.1 dB			19.9 dB	17.9 dB	19.8 dB	100 ± 32 Ohm	100 ± 5 Ohm	55.3 dB	28.3 dB	32.6 dB	
400 MHz	40.1 dB/100m	36.3 dB	34.3 dB			18.8 dB	16.8 dB	19.5 dB	100 ± 32 Ohm	100 ± 5 Ohm	54.5 dB	27.2 dB	32 dB	
450 MHz	42.7 dB/100m	35.5 dB	33.5 dB			17.7 dB	15.7 dB	18.9 dB	100 ± 32 Ohm	100 ± 5 Ohm	53.7 dB	26.1 dB	31.5 dB	
500 MHz	45.3 dB/100m	34.8 dB	32.8 dB			16.8 dB	14.8 dB	18.4 dB	100 ± 32 Ohm	100 ± 5 Ohm	53 dB	25.2 dB	31 dB	
550 MHz	47.7 dB/100m	34.2 dB	32.2 dB			16 dB	14 dB	18 dB	100 ± 32 Ohm	100 ± 5 Ohm	52.4 dB	24.4 dB		
600 MHz	50.1 dB/100m	33.6 dB	31.6 dB			15.2 dB	13.2 dB	17.6 dB	100 ± 32 Ohm	100 ± 5 Ohm	51.8 dB	23.6 dB		
625 MHz	51.2 dB/100m	33.4 dB	31.4 dB			14.9 dB	12.9 dB	17.4 dB	100 ± 32 Ohm	100 ± 5 Ohm	51.6 dB	23.3 dB		
750 MHz	56.7 dB/100m	32.2 dB	30.2 dB			13.3 dB	11.3 dB	16.5 dB			50.4 dB	21.7 dB		
860 MHz	61.2 dB/100m	31.3 dB	29.3 dB			12.1 dB	10.1 dB	15.8 dB			49.5 dB	20.5 dB		

Segregation class according EN50174-2:	a
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Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Operating Temperature Range:	0°C To +75°C
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Mechanical Characteristics

Bulk Cable Weight:	40 lbs/1000ft
Max. Pull Tension:	45 lbs
Min. Bend Radius During Installation:	3.0 in
Min. Bend Radius/Minor Axis:	2 in

Standards

CPR Euroclass:	Eca
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA/EIA 568 C.2 Category 6A

Applicable Environmental and Other Programs

Environmental Space:	LSZH
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EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

Flammability, LS0H, Toxicity Testing

UL voltage rating:	300 V RMS
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Non-Plenum Number:	10GX32
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Variants

Item #	Color	Put-Up Type	Length	UPC
10GX44 0061000	Blue, Light			612825102380
10GX44 0071000	Violet			612825102397
10GX44 0091000	White	Reel	1,000 ft	612825102403

Product Notes

Notes:	Jacket sequentially marked at 2 ft. intervals. Third party channel verified to TIA/EIA-568-C.2, Category 6A. Category 6A. 0.295" cable dimension per TIA 6@1 equivalent diameter. Values above 625MHz are for Engineering Information Only.
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History

Update and Revision:	Revision Number: 0.359 Revision Date: 04-29-2024
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