Part Number: 10GX32

CAT6A 10GX Bonded-Pair, 4pr, UTP, PVC Jkt, CMR

Product Description

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

Technical Specifications

Product Overview

Environmental Space:	Riser
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

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	23 AWG

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 Jacket Material

Material	Nominal Diameter	Ripcord	Separator Material
PVC - Polyvinyl Chloride	0.295 in	Yes	Patented RoundFlex - Double H Cross-Web

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]	Nominal Conductor DCR
7.5 Ohm/1000ft	3 %	5 %	7.5 Ohm/1000ft

Capacitance

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

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	30 ns/100m	64 %

High Freq

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	20.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	67.0 dB	67.0 dB	48.0 dB	43.0 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	23.0 dB	100 ± 15 Ohm	100 ± 10.4 Ohm	67.0 dB	67.0 dB	48.0 dB	41.0 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	67.0 dB	61.1 dB	48.0 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	25.0 dB	100 ± 15 Ohm	100 ± 7.3 Ohm	67.0 dB	59.2 dB	48.0 dB	23.0 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	25.0 dB	100 ± 15 Ohm	100 ± 5 Ohm	67.0 dB	55.1 dB	46.0 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	25.0 dB	100 ± 15 Ohm	100 ± 5 Ohm	67.0 dB	53.2 dB	45.0 dB	17.0 dB
25 MHz	9.4 dB/100m	54.3 dB	52.3 dB	45.0 dB	43.0 dB	42.8 dB	40.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 5 Ohm	67.0 dB	51.2 dB	44.0 dB	15.0 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	25.0 dB	100 ± 15 Ohm	100 ± 5 Ohm	67.0 dB	49.3 dB	43.1 dB	
62.5 MHz	15.0 dB/100m	48.4 dB	46.4 dB	33.4 dB	31.4 dB	34.9 dB	32.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 5 Ohm	66.6 dB	43.3 dB	40.0 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	25.0 dB	100 ± 15 Ohm	100 ± 5 Ohm	63.5 dB	39.2 dB	38.0 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	21.0 dB	100 ± 22 Ohm	100 ± 5 Ohm	59.0 dB	33.2 dB	35.0 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	34.0 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	32.0 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	53.0 dB	25.2 dB	31.0 dB	
550 MHz	47.7 dB/100m	34.2 dB	32.2 dB			16.0 dB	14.0 dB	18.0 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

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Installation Temp Range:	+5°C To +50°C
UL Temp Rating:	90°C
Storage Temp Range:	-20°C To +75°C
Operating Temp Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	40 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius During Installation:	3.0 in
Min Bend Radius/Minor Axis:	0.6 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class EA

Data Category:	Category 6A
ANSI Compliance:	S-116-732-2013 Category 6A, ANSI/NEMA WC-66 Category 6A
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 6A
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Other Specification:	Verified Channel/Category 6A
Other Standards:	C(UL)US CMR 90C OR (UL) CMR-LP (0.5A) OR CL3R-LP (0.5A)

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2011-12-09
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LS0H, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL 1666 Riser
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	10GX33

Part Number

Variants

Item #	Color	UPC	Length	Footnote
10GX32 0061000	Blue	612825102304	1,000 ft	
10GX32 0081000	Gray	612825102311	1,000 ft	C
10GX32 0091000	White	612825102328	1,000 ft	C
10GX32 0041000	Yellow	612825102298	1,000 ft	C

Footnote:	C - CRATE REEL PUT-UP.
Patent:	https://www.belden.com/resources/patents

Product Notes

Notes:	Values above 625 MHz are for Engineering Information Only. 0.295" Cable Dimension per TIA 6@1 Equivalent Diameter. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0.

History

Update and Revision:	Revision Number: 0.360 Revision Date: 03-29-2019

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