



## 10GX33

**Part Number:** 10GX33

Enhanced Category 6A Bonded-Pair Cable

## Product Description

CAT6A (625MHz), 4-Bonded-Pair, U/UTP-Unshielded, Plenum-CMP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, FEP Insulation, Patented Double-H Spline, Ripcord, Flamarrest® Jacket

## Product Specifications

## Technical Specifications

### Product Description

### Application

**Suitable Applications:**

Premise Horizontal Cable, 10 Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, PoE

### Classification

### Construction and Dimensions

**Conductor:**

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

### Conductor

**Total Number of Conductors:**

8

**Insulation:**

**Material**

**Nominal Wall Thickness**

FEP - Fluorinated Ethylene Propylene	0.011 in
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## Insulation

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### Color Chart 1:

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

## InnerShield

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## Cabling<sup>1</sup>

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### Outershield 1:

Material
Unshielded

### Outerjacket 1:

Material	Material Trade Name	Nominal Diameter	Ripcord	Separator Material
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.295 mm	Yes	Patented RoundFlex - Double H Cross-Web

## OuterJacket1

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## OuterJacket2

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## Part Number

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## Static Ground

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## Tracer

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## Electrical Characteristics

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### Conductor DCR:

Max. DCR Unbalance	Nominal Conductor DCR
2 %	7.5 Ohm/km

### Capacitance:

Nominal Mutual Capacitance
17 pF/ft

## General Electrical Parameters

### Delay:

Max. Delay Description	Max. Delay Skew	Nominal Velocity of Propagation (VP)
538 @ 100MHz	30 ns/100m	68 ns/100m

### High Freq:

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT	Min. PSNEXT	Min. ACR	Min. PSACR	Min. ACRF (ELFEXT)	Min. PSACRF (PSELFEXT)	Min. RL (Return Loss)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance	Min. PSANEX	Min. PSAACRF	Min. FCL	Min. ELTCL
1 MHz	2.1 db/100ft	75.3 dB	73.3 dB	73.3 dB	71.3 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/100ft	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/100ft	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/100ft	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/100ft	57.2 dB	55.2 dB	49.8 dB	47.8 dB	46.7 dB	44.7 dB	25 dB	100 ± 15 Ohm	100 ± 5.7 Ohm	67 dB	55.1 dB	46 dB	18.9 dB
20 MHz	8.4 db/100ft	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	52 dB	45 dB	17 dB
25 MHz	9.4 db/100ft	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/100ft	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/100ft	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/100dB	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/100dB	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/100dB	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/100dB	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/100dB	37.1 dB	35.1 dB	na	na	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/100dB	36.3 dB	34.3 dB	na	na	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/100dB	35.5 dB	33.5 dB	na	na	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/100dB	34.8 dB	32.8 dB	na	na	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/100dB	34.2 dB	32.2 dB	na	na	16 dB	14 dB	18 dB	100 ± 32 Ohm	100 ± 5 Ohm	52.4 dB	2.4 dB		
600 MHz	50.1 db/100dB	33.6 dB	31.6 dB	na	na	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/100dB	33.4 dB	31.4 dB	na	na	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/100dB	32.2 dB	30.2 dB	na	na	13.3 dB	11.3 dB	16.5 dB			50.4 dB	21.7 dB		
860 MHz	61.2 db/100dB	31.3 dB	29.3 dB	na	na	12.1 dB	10.1 dB	15.8 dB			49.5 dB	20.5 dB		

#### Voltage:

##### UL Voltage Rating

300V RMS

#### Coupling Attenuation

#### Screening

## Transfer Impedance

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### Use

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Suitability - Burial:	No
Suitability - Outdoor:	No
Max Recommended Pulling Tension:	45 lbs

### Material

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### Safety

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C(UL) Flammability:	FT6
CSA Flammability:	FT6
UL Flammability:	NFPA 262 Plenum Flame Test (UL910)

### Temperature Range

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Installation Temp Range:	+5°C To +50 °C
Operating Temp Range:	-20°C To +60°C
Storage Temp Range:	-20°C To +75 °C

### Mechanical Characteristics

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#### Bend Radius

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Min Bend Radius/Minor Axis:	0.6 in
Min Bend Radius/Installation:	3 in

#### Crush Resistance

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#### Connectors

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#### Stripping Performance

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#### EU Directive

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EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes

## Part Number

Plenum (Y/N):	Yes
Non-Plenum Number:	10GX32

## Applicable Patents

Country:	US
Patent:	8030571

## Standards

Telecommunications Standards:	ANSI/TIA/EIA 568 C.2 Category 6A
CA Prop 65 (CJ for Wire & Cable):	Yes
CEC/C(UL) Specification:	CMP
MII Order #39 (China RoHS):	Yes
NEC/(UL) Specification:	CMP

## Contact Information

PHONE_NUM:	1-800-Belden1
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## History

## Usage

## Put Ups and Colors

Notes:	Jacket sequentially marked at 2 ft/1m. intervals. 0.295" cable dimension per TIA 6@1 equivalent diameter. Third party channel verified to TIA/EIA-568-C.2, Category 6A
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