



**Product:** [10GX33](#)

10GX Category 6A Enhanced Cable, 4 Bonded-Pairs, U/UTP, CMP

### Product Description

10GX Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Bonded-Pairs, 23 AWG Solid Bare Copper Conductors, U/UTP, Plenum-CMP, Flamarrest® PVC-LS Jacket

### Technical Specifications

#### Product Overview

Suitable Applications:	Premise Horizontal Cable, Ethernet up to 10GBASE-T, HDBaseT, PoE++, PoE+, PoE
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .

#### Construction Details

##### Conductor

Size	Stranding	Material	Number of Pairs
23 AWG	Solid	BC - Bare Copper	4

##### Insulation

Material	Color Code
FEP - Fluorinated Ethylene Propylene	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown
Bonded-Pair:	Yes

##### Outer Jacket

Separator	Material	Material Trade Name	Nom. Diameter	Ripcord
Double H Cross-Web (Patented RoundFlex®)	PVC - Polyvinyl Chloride	Flamarrest®	0.295 in (7.49 mm)	Yes
Overall Cable Diameter (Nominal):	0.295 in (7.49 mm)			

#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
74 Ohm/km (23 Ohm/1000ft)	90 pF/100m

##### Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	30 ns/100m	68%

##### 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) [Ohm]	Max./Min. Fitted Impedance [Ohm]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1 dB/100m	75.3	73.3	73.3	71.3	70.8	68.8	20.0	100 ± 15	100 ± 15	67.0	67.0	48.0	43.0
4	3.8 dB/100m	66.3	64.3	62.5	60.5	58.8	56.8	23.0	100 ± 15	100 ± 10.4	67.0	67.0	48.0	41.0
8	5.3 dB/100m	61.8	59.8	56.4	54.4	52.7	50.7	24.5	100 ± 15	100 ± 8	67.0	61.1	48.0	24.9
10	5.9 dB/100m	60.3	58.3	54.4	52.4	50.8	48.8	25.0	100 ± 15	100 ± 7.3	67.0	59.2	48.0	23.0
16	7.5 dB/100m	57.2	55.2	49.8	47.8	46.7	44.7	25.0	100 ± 15	100 ± 5.7	67.0	55.1	46.0	18.9
20	8.4 dB/100m	55.8	53.8	47.4	45.4	44.8	42.8	25.0	100 ± 15	100 ± 5	67.0	53.2	45.0	17.0

25	9.4 dB/100m	54.3	52.3	45.0	43.0	42.8	40.8	25.0	100 ± 15	100 ± 5	67.0	51.2	44.0	15.0
31.25	10.5 dB/100m	52.9	50.9	42.4	40.4	40.9	38.9	25.0	100 ± 15	100 ± 5	67.0	49.3	43.1	
62.5	15.0 dB/100m	48.4	46.4	33.4	31.4	34.9	32.9	25.0	100 ± 15	100 ± 5	66.6	43.3	40.0	
100	19.1 dB/100m	45.3	43.3	26.2	24.2	30.8	28.8	25.0	100 ± 15	100 ± 5	63.5	39.2	38.0	
200	27.6 dB/100m	40.8	38.8	13.2	11.2	24.8	22.8	21.0	100 ± 22	100 ± 5	59.0	33.2	35.0	
250	31.1 dB/100m	39.3	37.3	8.3	6.3	22.8	20.8	20.5	100 ± 32	100 ± 5	57.5	31.2	34.0	
300	34.3 dB/100m	38.1	36.1	3.9	1.9	21.3	19.3	20.1	100 ± 32	100 ± 5	56.3	29.7	33.2	
350	37.2 dB/100m	37.1	35.1			19.9	17.9	19.8	100 ± 32	100 ± 5	55.3	28.3	32.6	
400	40.1 dB/100m	36.3	34.3			18.8	16.8	19.5	100 ± 32	100 ± 5	54.5	27.2	32.0	
450	42.7 dB/100m	35.5	33.5			17.7	15.7	18.9	100 ± 32	100 ± 5	53.7	26.1	31.5	
500	45.3 dB/100m	34.8	32.8			16.8	14.8	18.4	100 ± 32	100 ± 5	53.0	25.2	31.0	
550	47.7 dB/100m	34.2	32.2			16.0	14.0	18.0	100 ± 32	100 ± 5	52.4	24.4		
600	50.1 dB/100m	33.6	31.6			15.2	13.2	17.6	100 ± 32	100 ± 5	51.8	23.6		
625	51.2 dB/100m	33.4	31.4			14.9	12.9	17.4	100 ± 32	100 ± 5	51.6	23.3		
750	56.7 dB/100m	32.2	30.2			13.3	11.3	16.5			50.4	21.7		
860	61.2 dB/100m	31.3	29.3			12.1	10.1	15.8			49.5	20.5		

## Voltage

### UL Voltage Rating

300 V (CMP), 300 V (CL3P)

## Mechanical Characteristics

### Temperature

UL Temperature	Operating	Installation	Storage
105°C	-20°C To +75°C	0°C To +50°C	-20°C To +75°C

### Bend Radius

Stationary Min.	Installation Min.
0.6 in (15 mm)	3.0 in (76 mm)

Max. Pull Tension: 40 lbs (18 kg)

Bulk Cable Weight: 46 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-116-732
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
CENELEC Compliance:	Segregation class according EN50174-2 = a
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	Verified Channel/Category 6A
Non-Plenum Number:	10GX32

## 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. 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: 0.523 Revision Date: 01-20-2023

## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC
10GX33 D151000	Blue	Reel	1,000 ft	612825102335
10GX33 0081000	Gray	Reel	1,000 ft	612825102359
10GX33 0091000	White	Reel	1,000 ft	612825102366
10GX33 0041000	Yellow	Reel	1,000 ft	612825102342

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