



Product: [10GXS33](#)



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

### Product Description

10GXS 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, Wi-Fi 6, Wi-Fi 5, PoE++, PoE+, PoE, Noisy Environments, Data Center EoR and MoR, Network Backbone, HDBaseT, HDBaseT 4K UHD
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	No. of Pairs
23 AWG	Solid	BC - Bare Copper	4

##### Insulation

Material	Color Code
FEP - Fluorinated Ethylene Propylene	White & Blue, White & Orange, White & Green, White & Brown

Bonded-Pair: Yes

##### Outer Jacket

Separator	Material	Material Trade Name	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®), EquiBlock™ Barrier Technology	PVC - Polyvinyl Chloride	Flamarrest®	0.273 in (6.93 mm)	Yes

Overall Cable Diameter (Nominal): 0.273 in (6.93 mm)

#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
75 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	45 ns/100m	69%

##### 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) [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	73.2	79.8	20.0	100 ± 15	105 ± 10	75.0	77.0	40.0	43.0
4	3.8 dB/100m	66.3	62.5	67.8	23.0	100 ± 15	100 ± 15	75.0	76.2	40.0	41.0
8	5.3 dB/100m	61.8	56.5	61.7	24.5	100 ± 15	100 ± 15	75.0	70.1	40.0	24.9
10	5.9 dB/100m	60.3	54.4	59.8	25.0	100 ± 15	100 ± 15	75.0	68.2	40.0	23.0
16	7.4 dB/100m	57.2	49.8	55.7	25.0	100 ± 15	100 ± 15	75.0	64.1	38.0	18.9
20	8.3 dB/100m	55.8	47.4	53.8	25.0	100 ± 15	100 ± 15	75.0	62.2	37.0	17.0

25	9.3 dB/100m	54.3	45.0	51.8	24.3	100 ± 15	100 ± 15	75.0	60.2	36.0	15.0
31.25	10.4 dB/100m	52.9	42.5	49.9	23.6	100 ± 15	100 ± 10	75.0	58.3	35.1	13.1
62.5	14.8 dB/100m	48.4	33.6	43.9	21.5	100 ± 15	100 ± 10	73.6	52.3	32.0	
100	18.9 dB/100m	45.3	26.4	39.8	20.1	100 ± 15	100 ± 10	70.5	48.2	30.0	
200	27.0 dB/100m	40.8	13.8	33.8	18.9	100 ± 22	100 ± 10	66.0	42.2	27.0	
250	30.4 dB/100m	39.3	9.0	31.8	17.3	100 ± 32	100 ± 10	64.5	40.2	26.0	
300	33.5 dB/100m	38.1	4.6	30.3	16.8	100 ± 32	100 ± 10	63.3	38.7	25.2	
350	36.3 dB/100m	37.1	0.8	28.9	16.3	100 ± 32	100 ± 10	62.3	37.3	24.6	
400	39.0 dB/100m	36.3		27.8	15.9	100 ± 32	100 ± 10	61.5	36.2	24.0	
450	41.5 dB/100m	35.5		26.7	15.5	100 ± 32	100 ± 10	60.7	35.1	23.5	
500	43.9 dB/100m	34.8		25.8	15.2	100 ± 32	100 ± 10	60.0	34.2	23.0	
550	46.2 dB/100m	33.2		25.0	14.9	100 ± 32	100 ± 10	59.4	33.4		
600	48.4 dB/100m	32.6		24.2	14.7	100 ± 32	100 ± 10	58.8	32.6		
625	49.5 dB/100m	32.4		23.9	14.5	100 ± 32	100 ± 10	58.6	32.3		
750	54.7 dB/100m	32.2		22.3	14.0	100 ± 32	100 ± 10	57.4	30.7		
860	58.9 dB/100m	31.3		21.1	13.6	100 ± 32	100 ± 10	56.5	29.5		

## Voltage

<b>UL Voltage Rating</b>
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.
0.5 in (13 mm)	2.5 in (64 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	38 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
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMP, CMP-LP (0.7A), CL3P-LP (0.7A)
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
GENELEC 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)
Non-Plenum Number:	10GXS12 (Nonbonded)/10GXS32

## 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: 0.410 Revision Date: 09-06-2023
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## Part Numbers

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### Variants

Item #	Color	UPC
10GXS33 0101000	Black	612825377238
10GXS33010A1000	Black	612825377207
10GXS33 D151000	Blue	612825377276
10GXS33D15A1000	Blue	612825377122
10GXS33 0081000	Gray	612825377221
10GXS33008A1000	Gray	612825377184
10GXS33009A1000	Gray	612825377191
10GXS33 0051000	Green	612825377283
10GXS33005A1000	Green	612825377160
10GXS33 0031000	Orange	612825373322
10GXS33003A1000	Orange	612825377146
10GXS33 0021000	Red	612825373308
10GXS33002A1000	Red	612825377139
10GXS33 0071000	Violet	612825377290
10GXS33007A1000	Violet	612825377177
10GXS33 0091000	White	612825373315
10GXS33 0041000	Yellow	612825377214
10GXS33004A1000	Yellow	612825377153

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