



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 https://www.belden.com/resources/patents .

Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
23	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 Material

Separator Material	Material	Material Trade Name	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®), EquiBlock™ Barrier Technology	PVC - Polyvinyl Chloride	Flamarrest®	0.270 in	Yes

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. DCR Unbalanced Between Pairs [%]	Max. Capacitance Unbalance	Nom. Mutual Capacitance
75 Ohm/km	3%	5%	90 pF/100m	17 pF/ft

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	45 ns/100m	69%

High Freq

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)	Max./Min. Fitted Impedance	Min. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	73.2 dB	79.8 dB	20.0 dB	100 ± 15 Ohm	105 ± 10 Ohm	75.0 dB	77.0 dB	40.0 dB	43.0 dB
4 MHz	3.8 dB/100m	66.3 dB	62.5 dB	67.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	76.2 dB	40.0 dB	41.0 dB
8 MHz	5.3 dB/100m	61.8 dB	56.5 dB	61.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	70.1 dB	40.0 dB	24.9 dB
10 MHz	5.9 dB/100m	60.3 dB	54.4 dB	59.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	68.2 dB	40.0 dB	23.0 dB
16 MHz	7.4 dB/100m	57.2 dB	49.8 dB	55.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	64.1 dB	38.0 dB	18.9 dB
20 MHz	8.3 dB/100m	55.8 dB	47.4 dB	53.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	62.2 dB	37.0 dB	17.0 dB
25 MHz	9.3 dB/100m	54.3 dB	45.0 dB	51.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	60.2 dB	36.0 dB	15.0 dB
31.25 MHz	10.4 dB/100m	52.9 dB	42.5 dB	49.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 10 Ohm	75.0 dB	58.3 dB	35.1 dB	13.1 dB

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

Voltage

UL Voltage Rating
300 V (CMP), 300 V (CL3P)

Mechanical Characteristics

Temperature

UL Rating	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	2.5 in

Max. Pull Tension:	40 lbs
Bulk Cable Weight:	38 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Fire Resistance:	NFPA 262, UL 910 (Plenum), FT6, FT6
NEC / UL Compliance:	Article 800, CMP;CMP-LP (0.7A);CL3P-LP (0.7A)
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-116-732-2013
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
Cenelec Compliance:	Segregation class according EN50174-2=a
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	Verified Channel/Category 6A

Part Number

Non-Plenum Number:	10GXS12 (Nonbonded)/10GXS32
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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

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: 0.294 Revision Date: 02-16-2021
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