BELDEN

Product: [10GXS12](#) 🔗

10GXS Category 6A Enhanced Cable, 4 Pair, U/UTP, CMR

Product Description

10GXS Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC 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/patents.

Construction Details

Conductor

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

Insulation

Material	Color Code
PO - Polyolefin	White & Blue, White & Orange, White & Green, White & Brown

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®), EquiBlock™ Barrier Technology	PVC - Polyvinyl Chloride	0.275 in (6.99 mm)	Yes

Overall Cable Diameter (Nominal):	0.275 in (6.99 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km (25 Ohm/1000ft)	45 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.	Typical Delay Skew
100 MHz	537.6 ns/100m	45 ns/100m	65%	30 ns/100m

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	74.8	20.0	100 ± 15	105 ± 10	75.0	77.0	40.0	35.0
4	3.8 dB/100m	66.3	62.5	62.8	23.0	100 ± 15	100 ± 15	75.0	76.2	40.0	23.0
8	5.3 dB/100m	61.8	56.5	56.7	24.5	100 ± 15	100 ± 15	75.0	70.1	40.0	16.9
10	5.9 dB/100m	60.3	54.4	54.8	25.0	100 ± 15	100 ± 15	75.0	68.2	40.0	15.0
16	7.4 dB/100m	57.2	49.8	50.7	25.0	100 ± 15	100 ± 15	75.0	64.1	38.0	10.9
20	8.3 dB/100m	55.8	47.5	48.8	25.0	100 ± 15	100 ± 15	75.0	62.2	37.0	9.0
25	9.3 dB/100m	54.3	45.0	46.8	24.3	100 ± 15	100 ± 15	75.0	60.2	36.0	7.0
31.25	10.4 dB/100m	52.9	42.5	44.9	23.6	100 ± 15	100 ± 10	75.0	58.3	35.1	5.1

62.5	14.8 dB/100m	48.4	33.6	38.9	21.5	100 ± 15	100 ± 10	73.6	52.3	32.0	
100	18.9 dB/100m	45.3	26.4	34.8	20.1	100 ± 15	100 ± 10	70.5	48.2	30.0	
200	27.0 dB/100m	40.8	13.8	28.8	18.0	100 ± 22	100 ± 10	66.0	42.2	27.0	
250	30.4 dB/100m	39.3	9.0	26.8	17.3	100 ± 32	100 ± 10	64.5	40.2	26.0	
300	33.5 dB/100m	38.1	4.6	25.3	16.8	100 ± 32	100 ± 10	63.3	38.7	25.2	
350	36.3 dB/100m	37.1	0.8	23.9	16.3	100 ± 32	100 ± 10	62.3	37.3	24.6	
400	39.0 dB/100m	36.3		22.8	15.9	100 ± 32	100 ± 10	61.5	36.2	24.0	
450	41.5 dB/100m	35.5		21.7	15.5	100 ± 32	100 ± 10	60.7	35.1	23.5	
500	43.9 dB/100m	34.8		20.8	15.2	100 ± 32	100 ± 10	60.0	34.2	23.0	
550	46.2 dB/100m	33.2		20.0	14.9	100 ± 32	100 ± 10	59.4	33.4		
600	48.4 dB/100m	32.6		19.2	14.7	100 ± 32	100 ± 10	58.8	32.6		
625	49.5 dB/100m	32.4		18.9	14.5	100 ± 32	100 ± 10	58.6	32.3		
750	54.7 dB/100m	32.2		17.3	14.0			57.4	30.7		
860	58.9 dB/100m	31.3		16.1	13.6			56.5	29.5		

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CL3R)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
90°C	-20°C To +75°C	0°C To +50°C	-20°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
1.25 in (31.8 mm)	2.75 in (69.9 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	35 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Riser, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800
CEC / C(UL) Compliance:	CMR
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
Plenum Number:	10GXS13

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.

History

Update and Revision:	Revision Number: 0.359 Revision Date: 01-20-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
10GXS12 0101000	Black	Reel	1,000 ft	612825004226
10GXS12010A1000	Black	Reel-in-Box	1,000 ft	612825004318
10GXS12 0061000	Blue, Light	Reel	1,000 ft	612825004189
10GXS12006A1000	Blue, Light	Reel-in-Box	1,000 ft	612825004271
10GXS12 0081000	Gray	Reel	1,000 ft	612825004202
10GXS12008A1000	Gray	Reel-in-Box	1,000 ft	612825004295
10GXS12 0051000	Green	Reel	1,000 ft	612825004172
10GXS12005A1000	Green	Reel-in-Box	1,000 ft	612825004264
10GXS12 0031000	Orange	Reel	1,000 ft	612825004158
10GXS12003A1000	Orange	Reel-in-Box	1,000 ft	612825004240
10GXS12 0071000	Purple	Reel	1,000 ft	612825004196
10GXS12007A1000	Purple	Reel-in-Box	1,000 ft	612825004288
10GXS12 0021000	Red	Reel	1,000 ft	612825004141
10GXS12002A1000	Red	Reel-in-Box	1,000 ft	612825004233
10GXS12 0091000	White	Reel	1,000 ft	612825004219
10GXS12009A1000	White	Reel-in-Box	1,000 ft	612825004301
10GXS12 0041000	Yellow	Reel	1,000 ft	612825004165
10GXS12004A1000	Yellow	Reel-in-Box	1,000 ft	612825004257