Product: 10GX12

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

Product Description

10GX 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, HDBaseT, PoE++, PoE+, PoE
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	No. of Pairs
23 AWG	Solid	BC - Bare Copper	4

Insulation

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

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Double H Cross-Web (Patented RoundFlex®)	PVC - Polyvinyl Chloride	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)	50 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	64%	35 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	73.3	71.2	68.8	20.0	100 ± 15	100 ± 15	67.0	67.0	40.0	35.0
4	3.8 dB/100m	64.3	60.5	56.8	23.0	100 ± 15	100 ± 10	67.0	67.0	40.0	23.0
8	5.3 dB/100m	59.8	54.4	50.7	24.5	100 ± 15	100 ± 10	67.0	61.1	40.0	16.9
10	5.9 dB/100m	58.3	52.4	48.8	25.0	100 ± 15	100 ± 10	67.0	59.2	40.0	15.0
16	7.5 dB/100m	55.2	47.8	44.7	25.0	100 ± 15	100 ± 10	67.0	55.1	40.0	10.9
20	8.4 dB/100m	53.8	45.4	42.8	25.0	100 ± 15	100 ± 10	67.0	53.2	38.0	9.0
25	9.4 dB/100m	52.3	43.0	40.8	24.3	100 ± 15	100 ± 10	67.0	51.2	36.0	7.0
31.25	10.5 dB/100m	50.9	40.4	38.9	23.6	100 ± 15	100 ± 10	67.0	49.3	35.1	

62.5	15.0 dB/100m	46.4	31.4	32.9	21.5	100 ± 15	100 ± 10	66.6	43.3	32.0	
100	19.1 dB/100m	43.3	24.2	28.8	20.1	100 ± 15	100 ± 10	63.5	39.2	30.0	
200	27.6 dB/100m	38.8	11.2	22.8	18.0	100 ± 22	100 ± 10	59.0	33.2	27.0	
250	31.1 dB/100m	37.3	6.3	20.8	17.3	100 ± 32	100 ± 10	57.5	31.2	26.0	
300	34.3 dB/100m	36.1	1.9	19.3	16.8	100 ± 32	100 ± 10	56.3	29.7	25.2	
350	37.2 dB/100m	35.1		17.9	16.3	100 ± 32	100 ± 10	55.3	28.3	24.6	
400	40.1 dB/100m	34.3		16.8	15.9	100 ± 32	100 ± 10	54.5	27.2	24.0	
450	42.7 dB/100m	33.5		15.7	15.5	100 ± 32	100 ± 10	53.7	26.1	23.5	
500	45.3 dB/100m	32.8		14.8	15.2	100 ± 32	100 ± 10	53.0	25.2	23.0	
550	47.7 dB/100m	32.2		14.0	14.9	100 ± 32	100 ± 10	52.4	24.4		
600	50.1 dB/100m	31.6		13.2	14.7	100 ± 32	100 ± 10	51.8	23.6		
625	51.2 dB/100m	31.4		12.9	14.5	100 ± 32	100 ± 10	51.6	23.3		
750	56.7 dB/100m	30.2		11.3	14.0			50.4	21.7		
860	61.2 dB/100m	29.3		10.1	13.6			49.5	20.5		

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)	3.0 in (76 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	36 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, CMR, CMR-LP (0.5A), CL3R-LP (0.5A)
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)
Plenum Number:	10GX13

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: 0.592 Revision Date: 04-29-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
10GX12 0101000	Black	Reel	1,000 ft	612825102168
10GX12 0101500	Black	Reel	1,500 ft	612825102175
10GX12 0061000	Blue	Reel	1,000 ft	612825102106
10GX12 0062500	Blue	Reel	2,500 ft	612825102113
10GX12 0081000	Gray	Reel	1,000 ft	612825102137
10GX12 0051000	Green	Reel	1,000 ft	612825102090
10GX12 0031000	Orange	Reel	1,000 ft	612825102069
10GX12 0071000	Purple	Reel	1,000 ft	612825102120
10GX12 0021000	Red	Reel	1,000 ft	612825102052
10GX12 0091000	White	Reel	1,000 ft	612825102144
10GX12 0091500	White	Reel	1,500 ft	612825102151
10GX12 0041000	Yellow	Reel	1,000 ft	612825102076
10GX12 0041500	Yellow	Reel	1,500 ft	612825102083

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