



Product: [10GX63F](#)

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

Product Description

10GX Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Bonded-Pairs, 23 AWG Solid Bare Copper Conductors, F/UTP - Foil Shielded, 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, Surveillance, HDBaseT, PoE++, PoE+, PoE, Noisy Environments
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, White & Orange, White & Green, White & Brown

Bonded-Pair:	Yes
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Inner Jacket Material

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.26 in	Yes

Outer Shield Material

Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	26 AWG (7x34) TC

Outer Jacket Material

Separator Material	Material	Material Trade Name	Nom. Diameter	Ripcord
Center Member (Patented X-Spline®)	PVC - Polyvinyl Chloride	Flamarrest®	0.310 in	Yes

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. DCR Unbalanced Between Pairs [%]	Max. Capacitance Unbalance	Nom. Mutual Capacitance
82 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	64%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [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	73.3 dB	71.2 dB	70.8 dB	68.8 dB	20.0 dB	100 ± 15 Ohm	105 ± 10 Ohm	77.0 dB	77.0 dB	40.0 dB	35.0 dB

4 MHz	3.8 dB/100m	64.3 dB	60.5 dB	58.8 dB	56.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	76.2 dB	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	59.8 dB	54.4 dB	52.7 dB	50.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	70.1 dB	40.0 dB	16.9 dB
10 MHz	5.9 dB/100m	58.3 dB	52.4 dB	50.8 dB	48.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	68.2 dB	40.0 dB	15.0 dB
16 MHz	7.5 dB/100m	55.2 dB	47.8 dB	46.7 dB	44.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	64.1 dB	38.0 dB	10.9 dB
20 MHz	8.4 dB/100m	53.8 dB	45.4 dB	44.8 dB	42.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	62.2 dB	37.0 dB	9.0 dB
25 MHz	9.4 dB/100m	52.3 dB	43.0 dB	42.8 dB	40.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	60.2 dB	36.0 dB	7.0 dB
31.25 MHz	10.5 dB/100m	50.9 dB	40.4 dB	40.9 dB	38.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	77.0 dB	58.3 dB	35.1 dB	
62.5 MHz	15.0 dB/100m	46.4 dB	31.4 dB	34.9 dB	32.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	77.0 dB	52.3 dB	32.0 dB	
100 MHz	19.1 dB/100m	43.3 dB	24.2 dB	30.8 dB	28.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	72.5 dB	48.2 dB	30.0 dB	
200 MHz	27.6 dB/100m	38.8 dB	11.2 dB	24.8 dB	22.8 dB	18.0 dB	100 ± 22 Ohm	100 ± 10 Ohm	68.5 dB	42.2 dB	27.0 dB	
250 MHz	31.1 dB/100m	37.3 dB	6.3 dB	22.8 dB	20.8 dB	17.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	66.5 dB	40.2 dB	26.0 dB	
300 MHz	34.3 dB/100m	36.1 dB	1.9 dB	21.3 dB	19.3 dB	16.8 dB	100 ± 32 Ohm	100 ± 10 Ohm	65.3 dB	38.7 dB	25.2 dB	
350 MHz	37.2 dB/100m	35.1 dB	-2.1 dB	19.9 dB	17.9 dB	16.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	64.3 dB	37.3 dB	24.6 dB	
400 MHz	40.1 dB/100m	34.3 dB		18.8 dB	16.8 dB	15.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	63.5 dB	36.2 dB	24.0 dB	
450 MHz	42.7 dB/100m	33.5 dB		17.7 dB	15.7 dB	15.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.7 dB	35.1 dB	23.5 dB	
500 MHz	45.3 dB/100m	32.8 dB		16.8 dB	14.8 dB	15.2 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.0 dB	34.2 dB	23.0 dB	
550 MHz	47.7 dB/100m	32.2 dB		14.9 dB	14.0 dB	14.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.4 dB	34.4 dB		
600 MHz	50.1 dB/100m	31.6 dB			13.2 dB	14.7 dB	100 ± 32 Ohm	100 ± 10 Ohm	61.8 dB	33.6 dB		
625 MHz	51.2 dB/100m	31.4 dB			12.9 dB	14.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	61.6 dB	33.3 dB		
750 MHz	56.7 dB/100m	30.2 dB			11.3 dB	14.0 dB	100 ± 32 Ohm	100 ± 10 Ohm	60.4 dB	31.7 dB		
860 MHz	61.2 dB/100m	29.3 dB			10.1 dB	13.6 dB	100 ± 32 Ohm	100 ± 10 Ohm	59.5 dB	30.5 dB		

Voltage

UL Voltage Rating
300 V (CMP)

Mechanical Characteristics

Temperature

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

Bend Radius

Installation Min.
3.0 in

Max. Pull Tension:	40 lbs
Bulk Cable Weight:	48 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, IEC 60332-1-2
NEC / UL Compliance:	Article 800, CMP
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
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
CPR Euroclass:	Eca
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
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	Verified Channel/Category 6A

Part Number

Non-Plenum Number:	10GX62F
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Variants

Item #	Color	Putup Type	Length	UPC
10GX63F 0101000	Black	Reel	1,000 ft	612825102526
10GX63F D151000	Blue	Reel	1,000 ft	612825102472
10GX63F 0081000	Gray	Reel	1,000 ft	612825102502
4813 0051000	Green	Reel	1,000 ft	612825153610
10GX63F 0021000	Red	Reel	1,000 ft	612825102489
10GX63F 0091000	White	Reel	1,000 ft	612825102519
10GX63F 0041000	Yellow	Reel	1,000 ft	612825102496
4813 0041000	Yellow	Reel	1,000 ft	612825153603

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: 0.444 Revision Date: 09-08-2021
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