




Product: [10GX24](#) 

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

Product Description

10GX Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Haloarrest® LSZH 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/resources/patents .

Construction Details

Conductor

Element	Size	Stranding	Material	Number of Pairs
Twisted Pair(s)	23 AWG	Solid	BC - Bare Copper	4

Insulation

Element	Material	Color Code
Twisted Pair(s)	PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Outer Jacket

Separator	Material	Material Trade Name	Nom. Diameter	Ripcord
Double H Cross-Web (Patented RoundFlex®)	LSZH - Low Smoke Zero Halogen (Flame Retardant)	Haloarrest®	0.309 in (7.85 mm)	Yes

Overall Cable Diameter (Nominal): 0.309 in (7.85 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
74 Ohm/km	90 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	45 ns/100m	64%

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)	Max./Min. Fitted Impedance	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 Ohm	100 ± 15 Ohm	67.0	67.0	40.0	35.0
4	3.8 dB/100m	64.3	60.5	56.8	23.0	100 ± 15 Ohm	100 ± 10 Ohm	67.0	67.0	40.0	23.0
8	5.3 dB/100m	59.8	54.4	50.7	24.5	100 ± 15 Ohm	100 ± 10 Ohm	67.0	61.1	40.0	16.9
10	5.9 dB/100m	58.3	52.4	48.8	25.0	100 ± 15 Ohm	100 ± 10 Ohm	67.0	59.2	40.0	15.0
16	7.5 dB/100m	55.2	47.8	44.7	25.0	100 ± 15 Ohm	100 ± 10 Ohm	67.0	55.1	40.0	10.9
20	8.4 dB/100m	53.8	45.4	42.8	25.0	100 ± 15 Ohm	100 ± 10 Ohm	67.0	53.2	38.0	9.0
25	9.4 dB/100m	52.3	43.0	40.8	24.3	100 ± 15 Ohm	100 ± 10 Ohm	67.0	51.2	36.0	7.0
31.25	10.5 dB/100m	50.9	40.4	38.9	23.6	100 ± 15 Ohm	100 ± 10 Ohm	67.0	49.3	35.1	

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

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-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: 34 lbs/1000ft (51 kg/km)

Standards and Compliance

Environmental Suitability:	LSZH, Indoor, Non-Halogenated
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
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
CENELEC Compliance:	Segregation class according EN50174-2 = a
European Directive Compliance:	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
Plenum Number:	10GX13
Non-Plenum Number:	10GX12

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: 0.554 Revision Date: 02-17-2022

Variants

Item #	Color	Putup Type	Length	UPC/EAN
10GX24.10305	Black	Reel	305 m	8719605000224

10GX24.06305	Blue	Reel	305 m	8719605000156
10GX24.0061000	Blue	Reel	1,000 ft	612825061854
10GX24.08305	Gray	Reel	305 m	8719605000194
10GX24.08500	Gray	Reel	500 m	8719605125149
10GX24.07305	Purple	Reel	305 m	8719605000170
10GX24.07500	Purple	Reel	500 m	8719605000187
10GX24.0071000	Purple	Reel	1,000 ft	612825061830
10GX24.071000	Purple	Reel	1,000 m	8719605000163
10GX24.09305	White	Reel	305 m	8719605000200
10GX24.09500	White	Reel	500 m	8719605000217
10GX24.0091000	White	Reel	1,000 ft	612825061847
10GX24.04305	Yellow	Reel	305 m	8719605000149
10GX24.0041000	Yellow	Reel	1,000 ft	612825061861
10GX24.041525	Yellow	Reel	1,525 m	8719605173232

© 2022 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.