



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	No. 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, CMR, CMR-LP (0.6A), CL3R-LP (0.6A)
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
GENELEC 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:	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: 0.362 Revision Date: 12-12-2023
----------------------	--

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

© 2024 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.