Belden



Product: Giga LAN 10 SD Category 6A CMP

Giga LAN 10 SD Category 6A Enhanced Cable, 4 Pair, U/UTP, CMP

Product Description

Giga LAN 10 SD Category 6A Enhanced Premise Horizontal Cable (625MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, 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, 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.

Product Life Cycle

Life Cycle:	Active - Product is available
Availability:	Americas

Construction Details

Conductor

Size	Material	No. of Pairs
23 AWG	BC - Bare Copper	4

Insulation

Material	Color Code
FEP - Fluorinated Ethylene Propylene	White & Blue, White & Orange, White & Green, White & Brown

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Flexweb® Core Separator, Alien Crosstalk Barrier	PVC - Polyvinyl Chloride	0.265 in (6.73 mm)	Yes

Overall Cable Diameter (Nominal):	0.265 in (6.73 mm)

Electrical Characteristics

Electricals

Max. Capacitance Unbalance
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	69%	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	75.3	73.2	74.8	20.0	100 ± 15	105 ± 10	75	77	40.0	35
4	3.8 dB	66.3	62.5	62.8	23.0	100 ± 15	100 ± 15	75	76.2	40.0	23
8	5.3 dB	61.8	56.5	56.7	24.5	100 ± 15	100 ± 15	75	70.1	40.0	16.9
10	5.9 dB/100m	60.3	54.4	54.8	25	100 ± 15	100 ± 15	75	68.2	40.0	15

16	7.4 dB/100m	57.2	49.8	50.7	25	100 ± 15	100 ± 15	75	64.1	38	10.9
20	8.3 dB/100m	55.8	47.5	48.8	25	100 ± 15	100 ± 15	75	62.2	37	9
25	9.3 dB/100m	54.3	45	46.8	24.3	100 ± 15	100 ± 15	75	60.2	36	7
31.25	10.4 dB/100m	52.9	42.5	44.9	23.6	100 ± 15	100 ± 10	75	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 dB/100m	40.8	13.8	28.8	18	100 ± 22	100 ± 10	66	42.2	27.0	
250	30.4 dB/100m	39.3	9	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 dB/100m	36.3		22.8	15.9	100 ± 32	100 ± 10	61.5	36.2	24.0	
450	41.5 dB/100ft	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	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			57.4	30.7		
860	58.9 dB/100m	31.3		16.1	13.6			56.5	29.5		

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
105°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:	37 lbs/1000ft (55 kg/km)

Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CMP, CL3P-LP (0.7A), CMP-LP (0.7A)
CEC / C(UL) Compliance:	CMP.
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
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)

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.

History

Update and Revision:	Revision Number: 0.22 Revision Date: 07-28-2026

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
M59153RB	Black	Reel in Box	1,000 ft	799936146790
M59146	Blue	Reel	1,000 ft	799936146479
M59146RB	Blue	Reel in Box	1,000 ft	799936146721

M59149	Gray	Reel	1,000 ft	799936146509
M59149RB	Gray	Reel-in-Box	1,000 ft	799936146752
M59150	Green, Dark	Reel	1,000 ft	799936146516
M59152	Orange	Reel	1,000 ft	799936146530
M59152RB	Orange	Reel in Box	1,000 ft	799936146783
M59147	Pink	Reel	1,000 ft	799936146486
M59154	Violet	Reel	1,000 ft	799936146554
M59154RB	Violet	Reel in Box	1,000 ft	799936146806
M59145	White	Reel	1,000 ft	799936146462
M59145RB	White		1,000 ft	799936146714
M59148	Yellow	Reel	1,000 ft	799936146493
M59148RB	Yellow	Reel-in-Box	1,000 ft	799936146745

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