



Product: [2148A](#)

Category 6A Indoor/Outdoor Cable, 4 Pair, U/UTP, CMR/CMX

Product Description

Category 6A Enhanced Premise Horizontal Cable (625MHz), Indoor/Outdoor, 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR/CMX Outdoor, PVC Jacket

Technical Specifications

Product Overview

Suitable Applications:	Indoor/Outdoor, Premise Horizontal Cable, Ethernet up to 10GBASE-T, Wi-Fi 6, Wi-Fi 5, PoE++, PoE+, PoE, HDBaseT
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	0.300 in (7.62 mm)	Yes
Overall Cable Diameter (Nominal):	0.300 in (7.62 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.
100 MHz	537.6 ns/100m	45 ns/100m	65%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1 dB/100m	75.3	75.3	73.2	74.8	20.0	100 +/-15	77.0	77.0	40.0	35.0
4	3.8 dB/100m	66.3	66.3	62.5	62.8	23.0	100 +/-15	77.0	76.2	40.0	23.0
8	5.3 dB/100m	61.8	61.8	56.4	56.7	24.5	100 +/-15	77.0	70.1	40.0	16.9
10	5.9 dB/100m	60.3	60.3	54.4	54.8	25.0	100 +/-15	77.0	68.2	40.0	15.0
16	7.5 dB/100m	57.2	57.2	49.8	50.7	25.0	100 +/-15	77.0	64.1	38.0	10.9
20	8.4 dB/100m	55.8	55.8	47.4	48.8	25.0	100 +/-15	77.0	62.2	37.0	9.0
25	9.4 dB/100m	54.3	54.3	45.0	46.8	24.3	100 +/-15	77.0	60.2	36.0	7.0
31.25	10.5 dB/100m	52.9	52.9	42.4	44.9	23.6	100 +/-15	78.1	58.3	35.1	5.1

62.5	15.0 dB/100m	48.4	48.4	33.4	38.9	21.5	100 +/-15	73.6	52.3	32.0	
100	19.1 dB/100m	45.3	45.3	26.2	34.8	20.1	100 +/-15	70.5	48.2	30.0	
200	27.6 dB/100m	40.8	40.8	13.2	28.8	18.7	100 +/-15	66.0	42.2	27.0	
250	31.1 dB/100m	39.3	39.3	8.3	26.8	18.0	100 +/-15	64.5	40.2	26.0	
300	34.3 dB/100m	38.1	38.1	3.9	25.3	17.5	100 +/-32	63.3	38.7	25.2	
350	37.2 dB/100m	37.1	37.1		23.9	17.0	100 +/-32	62.3	37.3	24.6	
400	40.1 dB/100m	36.3	36.3		22.8	16.6	100 +/-32	61.5	36.2	24.0	
450	42.7 dB/100m	35.5	35.5		21.7	16.2	100 +/-32	60.7	35.1	23.5	
500	45.3 dB/100m	34.8	34.8		20.8	15.9	100 +/-32	60.0	34.2	23.0	
550	47.7 dB/100m	33.2	31.2		20.0	15.6	100 +/-32	59.4	33.4	22.6	
600	50.1 dB/100m	32.6	30.6		19.2	15.4	100 +/-32	58.8	32.6	22.2	
625	51.2 dB/100m	32.4	30.4		18.9	15.2	100 +/-32	58.6	32.3	22.0	
750	56.7 dB/100m	31.2	29.2		17.3	14.7	100 +/-32	57.4	30.7	21.2	
860	61.2 dB/100m	30.3	28.3		16.1	14.3	100 +/-32	56.5	29.5	20.7	

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX-Outdoor)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
90°C	-40°C To +75°C	-20°C To +75°C	-40°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
2.5 in (64 mm)	3.0 in (76 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	41 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Aerial - When supported by messenger wire
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CMR, CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor
ICEA Compliance:	S-116-732, S-56-434, S-99-689, S-100-685
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 / 10GX33 / 10GXS13 / 10GXS33
Non-Plenum Number:	10GX12 / 10GX32 / 10GXS12 / 10GXS32

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: 0.414 Revision Date: 09-20-2023
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Part Numbers

Variants

Item #	Color	UPC
2148A 0101000	Black	612825379430

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