



Product: [2142A](#) 

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

Product Description

Category 6A Premise Horizontal Cable (625 MHz), Indoor/Outdoor, 4 Pair, 23 AWG Solid Bare Copper Conductors, F/UTP - Foil Shielded, Riser-CMR/CMX Outdoor, UV Resistant 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, Noisy Environments, HDBaseT
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
PO - Polyolefin	White & Blue, White & Orange, White & Green, White & Brown

Bonded-Pair: No

Outer Shield Material

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

Outer Jacket Material

Separator Material	Material	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®)	PVC - Polyvinyl Chloride	0.300 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%	45 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	65%

High Freq

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	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	73.2 dB	79.8 dB	20.0 dB	100 ± 15 Ohm	105 ± 10 Ohm	75.0 dB	77.0 dB	40.0 dB	43.0 dB
4 MHz	3.8 dB/100m	66.3 dB	62.5 dB	67.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	76.2 dB	40.0 dB	41.0 dB
8 MHz	5.3 dB/100m	61.8 dB	56.5 dB	61.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	70.1 dB	40.0 dB	24.9 dB
10 MHz	5.9 dB/100m	60.3 dB	54.4 dB	59.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	68.2 dB	40.0 dB	23.0 dB

16 MHz	7.4 dB/100m	57.2 dB	49.8 dB	55.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	64.1 dB	38.0 dB	18.9 dB
20 MHz	8.3 dB/100m	55.8 dB	47.4 dB	53.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	62.2 dB	37.0 dB	17.0 dB
25 MHz	9.3 dB/100m	54.3 dB	45.0 dB	51.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	75.0 dB	60.2 dB	36.0 dB	15.0 dB
31.25 MHz	10.4 dB/100m	52.9 dB	42.5 dB	49.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 10 Ohm	75.0 dB	58.3 dB	35.1 dB	13.1 dB
62.5 MHz	14.8 dB/100m	48.4 dB	33.6 dB	43.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 10 Ohm	73.6 dB	52.3 dB	32.0 dB	
100 MHz	18.9 dB/100m	45.3 dB	26.4 dB	39.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 10 Ohm	70.5 dB	48.2 dB	30.0 dB	
200 MHz	27.0 dB/100m	40.8 dB	13.8 dB	33.8 dB	18.9 dB	100 ± 22 Ohm	100 ± 10 Ohm	66.0 dB	42.2 dB	27.0 dB	
250 MHz	30.4 dB/100m	39.3 dB	9.0 dB	31.8 dB	17.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	64.5 dB	40.2 dB	26.0 dB	
300 MHz	33.5 dB/100m	38.1 dB	4.6 dB	30.3 dB	16.8 dB	100 ± 32 Ohm	100 ± 10 Ohm	63.3 dB	38.7 dB	25.2 dB	
350 MHz	36.3 dB/100m	37.1 dB	0.8 dB	28.9 dB	16.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.3 dB	37.3 dB	24.6 dB	
400 MHz	39.0 dB/100m	36.3 dB		27.8 dB	15.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	61.5 dB	36.2 dB	24.0 dB	
450 MHz	41.5 dB/100m	35.5 dB		26.7 dB	15.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	60.7 dB	35.1 dB	23.5 dB	
500 MHz	43.9 dB/100m	34.8 dB		25.8 dB	15.2 dB	100 ± 32 Ohm	100 ± 10 Ohm	60.0 dB	34.2 dB	23.0 dB	
550 MHz	46.2 dB/100m	33.2 dB		25.0 dB	14.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	59.4 dB	33.4 dB		
600 MHz	48.4 dB/100m	32.6 dB		24.2 dB	14.7 dB	100 ± 32 Ohm	100 ± 10 Ohm	58.8 dB	32.6 dB		
625 MHz	49.5 dB/100m	32.4 dB		23.9 dB	14.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	58.6 dB	32.3 dB		
750 MHz	54.7 dB/100m	32.2 dB		22.3 dB	14.0 dB	100 ± 32 Ohm	100 ± 10 Ohm	57.4 dB	30.7 dB		
860 MHz	58.9 dB/100m	31.3 dB		21.1 dB	13.6 dB	100 ± 32 Ohm	100 ± 10 Ohm	56.5 dB	29.5 dB		

Voltage

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

Mechanical Characteristics

Temperature

UL Rating	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	3.0 in

Max. Pull Tension:	25 lbs
Bulk Cable Weight:	41 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL 1666 Riser, FT4, FT4, 1202 Vertical Tray
NEC / UL Compliance:	Article 800, CMR;CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor
ICEA Compliance:	S-116-732-2013
ICEA Compliance:	S-56-434
ICEA Compliance:	S-99-689
ICEA Compliance:	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
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), 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

Plenum Number:	10GX53F / 10GX63F
Non-Plenum Number:	10GX52F / 10GX62F

Variants

Item #	Color	UPC
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Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 625MHz 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: 0.199 Revision Date: 02-25-2021
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