Belden

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 Enivronments, 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 Shield

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

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®)	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. 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	79.8	20.0	100 ± 15	105 ± 10	75.0	77.0	40.0	43.0
4	3.8 dB/100m	66.3	62.5	67.8	23.0	100 ± 15	100 ± 15	75.0	76.2	40.0	41.0
8	5.3 dB/100m	61.8	56.5	61.7	24.5	100 ± 15	100 ± 15	75.0	70.1	40.0	24.9
10	5.9 dB/100m	60.3	54.4	59.8	25.0	100 ± 15	100 ± 15	75.0	68.2	40.0	23.0

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

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:	42 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
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
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
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	10GX53F / 10GX63F
Non-Plenum Number:	10GX52F / 10GX62F

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.

History

Update and Revision:	Revision Number: 0.329 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	UPC
2142A 0101000	Black	612825401056

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