Product: 2412

Category 6+ Enhanced Cable, 4 Pair, U/UTP, CMR

Product Description

Category 6+ Enhanced Premise Horizontal Cable (350MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC Jacket

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE
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 Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Dielectric Tape (Patented)	PVC - Polyvinyl Chloride	0.224 in (5.69 mm)	Yes

Overall Cable Diameter (Nominal):	0.224 in (5.69 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
78 Ohm/km (24 Ohm/1000ft)	330 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	35 ns/100m	70%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	79.3	77.3	77.3	75.3	70.8	67.8	20.0	100 ± 15	102 ± 15
4	3.7 dB/100m	70.3	68.3	66.5	64.5	58.8	55.8	23.6	100 ± 15	100 ± 15
8	5.3 dB/100m	65.8	63.8	60.5	58.5	52.7	49.7	25.3	100 ± 15	100 ± 15
10	5.9 dB/100m	64.3	62.3	58.4	56.4	50.8	47.8	26.0	100 ± 15	100 ± 15
16	7.4 dB/100m	61.2	59.2	53.8	51.8	46.7	43.7	26.0	100 ± 15	100 ± 15
20	8.3 dB/100m	59.8	57.8	51.4	49.4	44.8	41.8	26.0	100 ± 15	100 ± 15
25	9.4 dB/100m	58.3	56.3	49.0	47.0	42.8	39.8	25.5	100 ± 15	100 ± 15
31.25	10.5 dB/100m	56.9	54.9	46.4	44.4	40.9	37.9	25.0	100 ± 15	100 ± 15

62.5	15.1 dB/100m	52.4	50.4	37.3	35.3	34.9	31.9	23.5	100 ± 15	100 ± 15
100	19.3 dB/100m	49.3	47.3	30.0	28.0	30.8	27.8	22.5	100 ± 15	100 ± 15
155	24.5 dB/100m	46.4	44.4	21.9	19.9	27.0	24.0	21.6	100 ± 22	100 ± 15
200	28.3 dB/100m	44.8	42.8	16.6	14.6	24.8	21.8	21.0	100 ± 22	100 ± 15
250	31.8 dB/100m	43.3	41.3	11.5	9.5	22.8	19.8	20.5	100 ± 32	100 ± 15
300	35.2 dB/100m	42.1	40.1	6.9	4.9	21.3	18.3	20.1	100 ± 32	100 ± 15
350	38.4 dB/100m	41.1	39.1	2.7	0.7	19.9	16.9	19.8	100 ± 32	100 ± 15
400	41.5 dB/100m	40.3	38.3			18.8	15.8	19.5	100 ± 32	100 ± 15
450	44.3 dB/100m	39.5	37.5			17.7	14.7	19.2	100 ± 32	100 ± 15
500	47.1 dB/100m	38.8	36.8			16.8	13.8	19.0	100 ± 32	100 ± 15
550	49.7 dB/100m	38.2	36.2			16.0	13.0	18.8	100 ± 32	100 ± 15

Voltage

UL Voltage Rating
300 V (CMR)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
75°C	-20°C To +75°C	0°C To +50°C	-20°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
1.0 in (25 mm)	2.25 in (57.2 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	22 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
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 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
Third Party Performance Verification:	Category 6
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)
Plenum Number:	2413

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 350 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: 0.641 Revision Date: 12-12-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
2412 0101000	Black	Reel	1,000 ft	612825061199	

2412 010A1000	Black	Reel-in-Box	1,000 ft	612825061205	
2412 010U1000	Black	UnReel	1,000 ft	612825062165	
2412 0061000	Blue	Reel	1,000 ft	612825061045	
2412 006A1000	Blue	Reel-in-Box	1,000 ft	612825061052	
2412 006U1000	Blue	UnReel	1,000 ft	612825061236	
2412 0061400	Blue	Reel	1,400 ft	612825061076	
2412 0062500	Blue	Reel	2,500 ft	612825061069	
2412 0065000	Blue	Reel	5,000 ft	612825062134	C
2412 0081000	Gray	Reel	1,000 ft	612825061168	
2412 008A1000	Gray	Reel-in-Box	1,000 ft	612825061175	
2412 008U1000	Gray	UnReel	1,000 ft	612825061243	
2412 0051000	Green	Reel	1,000 ft	612825061083	
2412 005A1000	Green	Reel-in-Box	1,000 ft	612825061090	
2412 005U1000	Green	UnReel	1,000 ft	612825062127	
2412 003A1000	Orange	Reel-in-Box	1,000 ft	612825061212	
2412 003U1000	Orange	UnReel	1,000 ft	612825062103	
2412 007A1000	Purple	Reel-in-Box	1,000 ft	612825061182	
2412 007U1000	Purple	UnReel	1,000 ft	612825062141	
2412 002A1000	Red	Reel-in-Box	1,000 ft	612825061229	C
2412 0091000	White	Reel	1,000 ft	612825061106	
2412 009A1000	White	Reel-in-Box	1,000 ft	612825061113	
2412 009U1000	White	UnReel	1,000 ft	612825061250	
2412 0092500	White	Reel	2,500 ft	612825061120	
2412 0095000	White	Reel	5,000 ft	612825062158	C
2412 0041000	Yellow	Reel	1,000 ft	612825061137	
2412 004A1000	Yellow	Reel-in-Box	1,000 ft	612825061151	
2412 004U1000	Yellow	UnReel	1,000 ft	612825062110	
2412 0042500	Yellow	Reel	2,500 ft	612825061144	

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