Product: 4812

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

Product Description

Category 6+ Enhanced Premise Horizontal Cable (600MHz), 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
Center Member (Patented X-Spline®)	PVC - Polyvinyl Chloride	0.255 in (6.48 mm)	Yes

Overall Cable Diameter (Nominal):	0.255 in (6.48 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
67 Ohm/km (20 Ohm/1000ft)	90 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	45 ns/100m	68%

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]	Min. TCL [dB]	Min. ELTCTL [dB]
0.772	1.7 dB/100m	83.0	82.0	81.3	80.3	77.0	75.0			102 ± 15	40.0	37.2
1	1.9 dB/100m	81.3	80.3	79.4	78.4	74.8	72.8	20.0	100 ± 15	100 ± 15	40.0	35.0
4	3.5 dB/100m	72.3	71.3	68.8	67.8	62.8	60.8	23.0	100 ± 15	100 ± 15	40.0	23.0
8	4.9 dB/100m	67.8	66.8	62.8	61.8	56.7	54.7	24.5	100 ± 15	100 ± 15	40.0	16.9
10	5.5 dB/100m	66.3	65.3	60.8	59.8	54.8	52.8	25.0	100 ± 15	100 ± 15	40.0	15.0
16	7.0 dB/100m	63.2	62.2	56.3	55.3	50.7	48.7	25.0	100 ± 15	100 ± 15	38.0	10.9
20	7.8 dB/100m	61.8	60.8	54.0	53.0	48.8	46.8	25.0	100 ± 15	100 ± 15	37.0	9.0
25	8.7 dB/100m	60.3	59.3	51.6	50.6	46.8	44.8	25.0	100 ± 15	100 ± 15	36.0	7.0

31.25	9.8 dB/100m	58.9	57.9	49.1	48.1	44.9	42.9	24.3	100 ± 15	100 ± 15	35.1	
62.5	14.1 dB/100m	54.4	53.4	40.3	39.3	38.9	36.9	22.2	100 ± 15	100 ± 15	32.0	
100	18.0 dB/100m	51.3	50.3	33.3	32.3	34.8	32.8	20.8	100 ± 15	100 ± 15	30.0	
155	22.8 dB/100m	48.4	47.4	25.7	24.7	31.0	29.0	19.5	100 ± 22	100 ± 15	28.1	
200	26.2 dB/100m	46.8	45.8	20.6	19.6	28.8	26.8	18.7	100 ± 22	100 ± 15	27.0	
250	29.6 dB/100m	45.3	44.3	15.8	14.8	26.8	24.8	18.0	100 ± 32	100 ± 15	26.0	
300	32.7 dB/100m	44.1	43.1	11.4	10.4	25.3	23.3	17.5	100 ± 32	100 ± 15		
350	35.6 dB/100m	43.1	42.1	7.5	6.5	23.9	21.9	17.0	100 ± 32	100 ± 15		
400	38.4 dB/100m	42.3	41.3	3.9	2.9	22.8	20.8	16.6	100 ± 32	100 ± 15		
450	41.0 dB/100m	41.5	40.5	0.5		21.7	19.7	16.2	100 ± 32	100 ± 15		
500	43.6 dB/100m	40.8	39.8			20.8	18.8	15.9	100 ± 32	100 ± 15		
550	46.0 dB/100m	40.2	39.2			20.0	18.0	15.6	100 ± 32	100 ± 15		
600	48.4 dB/100m	39.6	38.6			19.2	17.2	15.4	100 ± 32	100 ± 15		
650	50.6 dB/100m	39.1	36.1			18.5	15.5	15.1				
750	55.0 dB/100ft	38.2	35.2			17.3	14.3	14.7				
860	59.6 dB/100ft	37.3	34.3			16.1	13.1	14.3				

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CL3R)

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)	2.75 in (69.9 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	31 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, CMR-LP (0.5A), CL3R-LP (0.5A)
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
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:	4813

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 600 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: 0.521 Revision Date: 04-29-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
4812 0103000	Black	Reel	3,000 ft	612825153573
4812 0103000	Black	Reel	3,000 ft	612825153573
4812 0061000	Blue	Reel	1,000 ft	612825153528
4812 0061000	Blue	Reel	1,000 ft	612825153528
4812 006A1000	Blue	Reel-in-Box	1,000 ft	612825153511
4812 006A1000	Blue	Reel-in-Box	1,000 ft	612825153511
4812 0062500	Blue	Reel	2,500 ft	612825153535
4812 0062500	Blue	Reel	2,500 ft	612825153535
4812 0081000	Gray	Reel	1,000 ft	612825153542
4812 0081000	Gray	Reel	1,000 ft	612825153542
4812 0051000	Green	Reel	1,000 ft	612825153504
4812 0051000	Green	Reel	1,000 ft	612825153504
4812 0021000	Red	Reel	1,000 ft	612825153481
4812 0021000	Red	Reel	1,000 ft	612825153481
4812 0091000	White	Reel	1,000 ft	612825153566
4812 0091000	White	Reel	1,000 ft	612825153566
4812 009A1000	White	Reel-in-Box	1,000 ft	612825153559
4812 009A1000	White	Reel-in-Box	1,000 ft	612825153559
4812 0041000	Yellow	Reel	1,000 ft	612825153498
4812 0041000	Yellow	Reel	1,000 ft	612825153498

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