



Product: [4813](#) 

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

Product Description

Category 6+ Enhanced Premise Horizontal Cable (600MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Plenum-CMP, Flamarrest® PVC-LS 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/resources/patents .

Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
23	Solid	BC - Bare Copper	4

Insulation

Material	Color Code
PO/FEP - Polyolefin / Fluorinated Ethylene Propylene	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown
Bonded-Pair:	No

Outer Jacket Material

Separator Material	Material	Material Trade Name	Nom. Diameter	Ripcord
Center Member (Patented X-Spline®)	PVC-LS - Polyvinyl Chloride (Low Smoke)	Flamarrest®	0.258 in	Yes

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. DCR Unbalanced Between Pairs [%]	Max. Capacitance Unbalance	Nom. Mutual Capacitance	Nom. Velocity of Prop.
67 Ohm/km	3%	5%	90 pF/100m	15.5 pF/ft	70%

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	45 ns/100m	70%

High Freq

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

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

Voltage

UL Voltage Rating
300 V (CMP), 300 V (CL3P)

Mechanical Characteristics

Temperature

UL Rating	Operating	Installation	Storage
90°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	2.75 in

Max. Pull Tension:	25 lbs
Bulk Cable Weight:	33 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Fire Resistance:	NFPA 262, UL 910 (Plenum), FT6, FT6, IEC 60332-1-2
NEC / UL Compliance:	800, CMP;CMP-LP (0.6A);CL3P-LP (0.6A)
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-116-732-2013
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
Cenelec Compliance:	Segregation class according EN50174-2=a
CPR Euroclass:	Eca
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)

Part Number

Non-Plenum Number:	4812
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Variants

Item #	Color	Putup Type	Length	UPC
4813 0101000	Black	Reel	1,000 ft	612825153665
4813 0101000	Black	Reel	1,000 ft	612825153665
4813 0103000	Black	Reel	3,000 ft	612825153672
4813 0103000	Black	Reel	3,000 ft	612825153672
4813 D151000	Blue	Reel	1,000 ft	612825153597

4813 D15A1000	Blue	Reel-in-Box	1,000 ft	612825153580
4813 D151000	Blue	Reel	1,000 ft	612825153597
4813 D15A1000	Blue	Reel-in-Box	1,000 ft	612825153580
4813 0081000	Gray	Reel	1,000 ft	612825153627
4813 0081000	Gray	Reel	1,000 ft	612825153627
4813 0051000	Green	Reel	1,000 ft	612825153610
4813 0091000	White	Reel	1,000 ft	612825153641
4813 0091000	White	Reel	1,000 ft	612825153641
4813 009A1000	White	Reel-in-Box	1,000 ft	612825153634
4813 009A1000	White	Reel-in-Box	1,000 ft	612825153634
4813 0092500	White	Reel	2,500 ft	612825153658
4813 0092500	White	Reel	2,500 ft	612825153658
4813 0041000	Yellow	Reel	1,000 ft	612825153603

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.
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History

Update and Revision:	Revision Number: 0.416 Revision Date: 07-28-2020
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