



Product: <u>1583EPE</u> ☑

Category 5e Cable, 4 Pair, U/UTP, PE Outdoor

Product Description

Category 5e Premise Horizontal Cable (100MHz), 4-Pair, 24 AWG solid bare copper conductors, U/UTP, Polyethylene insulation, PE jacket

Technical Specifications

Product Overview

Suitable Applications: Horizontal and building backbone cable; Support current and future Category 5e applications, such as: 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM, suitable for outdoor use

Construction Details

Conductor

ĺ	Element	Size	Stranding	Material	No. of Pairs
	Individual Pair	24	Solid	BC - Bare Copper	4

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Pair	PE - Polyethylene	0.9 mm (0.035 in)	White/Blue & Blue, White/Green & Green, White/Orange & Orange, White/Brown & Brown

Outer Jacket

Material	Nom. Diameter		
PE - Polyethylene	4.7 mm (0.19 in)		

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance	
95 Ohm/km (29 Ohm/1000ft)	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm	

Delay

Max. Delay Skew	Nom. Velocity of Prop.
40 ns/100m	70%

High Frequency

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]	Min. TCL [dB]	Min. ELTCTL [dB]
2.1 dB/100m	65.3	62.3	63.2	60.2	64	61	20	40	35
4 dB/100m	56.3	53.3	52.32	49.3	52	49	23	34	23
6.3 dB/100m	50.3	47.3	44	41	44	41	25	30	15
8 dB/100m	47.2	44.2	39.2	36.2	39.9	36.9	25	28	10.9
9 dB/100m	45.8	42.8	36.8	33.8	38	35	25	27	9
11.4 dB/100m	42.9	39.9	31.5	28.5	34.1	31.5	23.6	25.1	5.5
16.5 dB/100m	38.4	35.4	21.9	18.9	28.1	25.1	21.5	22	
21.3 dB/100m	35.3	32.3	14	11	24	21	20.1	20	
	(Attenuation) 2.1 dB/100m 4 dB/100m 6.3 dB/100m 8 dB/100m 9 dB/100m 11.4 dB/100m 16.5 dB/100m	(Attenuation) [dB] 2.1 dB/100m 65.3 4 dB/100m 56.3 6.3 dB/100m 50.3 8 dB/100m 47.2 9 dB/100m 45.8 11.4 dB/100m 42.9 16.5 dB/100m 38.4	(Attenuation) [dB] [dB] 2.1 dB/100m 65.3 62.3 4 dB/100m 56.3 53.3 6.3 dB/100m 50.3 47.3 8 dB/100m 47.2 44.2 9 dB/100m 45.8 42.8 11.4 dB/100m 42.9 39.9 16.5 dB/100m 38.4 35.4	(Attenuation) [dB] [dB] [dB] 2.1 dB/100m 65.3 62.3 63.2 4 dB/100m 56.3 53.3 52.32 6.3 dB/100m 50.3 47.3 44 8 dB/100m 47.2 44.2 39.2 9 dB/100m 45.8 42.8 36.8 11.4 dB/100m 42.9 39.9 31.5 16.5 dB/100m 38.4 35.4 21.9	(Attenuation) [dB] [dB] [dB] [dB] 2.1 dB/100m 65.3 62.3 63.2 60.2 4 dB/100m 56.3 53.3 52.32 49.3 6.3 dB/100m 50.3 47.3 44 41 8 dB/100m 47.2 44.2 39.2 36.2 9 dB/100m 45.8 42.8 36.8 33.8 11.4 dB/100m 42.9 39.9 31.5 28.5 16.5 dB/100m 38.4 35.4 21.9 18.9	(Attenuation) [dB] [dB] [dB] [dB] (ELFEXT) [dB] 2.1 dB/100m 65.3 62.3 63.2 60.2 64 4 dB/100m 56.3 53.3 52.32 49.3 52 6.3 dB/100m 50.3 47.3 44 41 44 8 dB/100m 47.2 44.2 39.2 36.2 39.9 9 dB/100m 45.8 42.8 36.8 33.8 38 11.4 dB/100m 42.9 39.9 31.5 28.5 34.1 16.5 dB/100m 38.4 35.4 21.9 18.9 28.1	(Attenuation) [dB] [dB] [dB] (ELFEXT) [dB] (PSELFEXT) [dB] 2.1 dB/100m 65.3 62.3 63.2 60.2 64 61 4 dB/100m 56.3 53.3 52.32 49.3 52 49 6.3 dB/100m 50.3 47.3 44 41 44 41 8 dB/100m 47.2 44.2 39.2 36.2 39.9 36.9 9 dB/100m 45.8 42.8 36.8 33.8 38 35 11.4 dB/100m 42.9 39.9 31.5 28.5 34.1 31.5 16.5 dB/100m 38.4 35.4 21.9 18.9 28.1 25.1	(Attenuation) [dB] [dB] [dB] (ELFEXT) [dB] (PSELFEXT) [dB] Loss) [dB] 2.1 dB/100m 65.3 62.3 63.2 60.2 64 61 20 4 dB/100m 56.3 53.3 52.32 49.3 52 49 23 6.3 dB/100m 50.3 47.3 44 41 44 41 25 8 dB/100m 47.2 44.2 39.2 36.2 39.9 36.9 25 9 dB/100m 45.8 42.8 36.8 33.8 38 35 25 11.4 dB/100m 42.9 39.9 31.5 28.5 34.1 31.5 23.6 16.5 dB/100m 38.4 35.4 21.9 18.9 28.1 25.1 21.5	(Attenuation) [dB] [dB] [dB] (ELFEXT) [dB] (PSELFEXT) [dB] Loss) [dB] [dB] 2.1 dB/100m 65.3 62.3 63.2 60.2 64 61 20 40 4 dB/100m 56.3 53.3 52.32 49.3 52 49 23 34 6.3 dB/100m 50.3 47.3 44 41 44 41 25 30 8 dB/100m 47.2 44.2 39.2 36.2 39.9 36.9 25 28 9 dB/100m 45.8 42.8 36.8 33.8 38 35 25 27 11.4 dB/100m 42.9 39.9 31.5 28.5 34.1 31.5 23.6 25.1 16.5 dB/100m 38.4 35.4 21.9 18.9 28.1 25.1 21.5 22

Table Notes: Limits below 4 MHz are for information only. Reference standard: IEC 61156-5

Voltage



Mechanical Characteristics

Temperature

Operating	Installation		
-30°C To +60°C	0°C To +50°C		

Bend Radius

Installation Min.

40 mm (1.6 in)

Max. Pull Tension:	65 N (15 lbf)
Bulk Cable Weight:	27 kg/km (18 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Outdoor, Sunlight Resistance - Black only
CPR Compliance:	CPR Euroclass: Fca
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3
Data Category:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = a
UK Regulation Compliance:	UKCA Mark

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.	ĺ
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History

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Update and Revision:	Revision Number: 0.264 Revision Date: 12-12-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
1583EPE.00100	Black	Reel	100 m	8719605002600
1583EPE.00250	Black	Reel	250 m	8719605002624
1583EPE.00305	Black	Reel	305 m	8719605002631
1583EPE.00U305	Black	UnReel	305 m	8719605002655
1583EPE.00500	Black	Reel	500 m	8719605002648
1583EPE.001000	Black	Reel	1,000 m	8719605002617

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