

Product: 1888EPE

Category 7A Enhanced Cable, 4 Pair, S/FTP, PE Outdoor

Product Description

Category 7A Enhanced Premise Horizontal Cable (1300MHz), 4-Pair, 22 AWG solid bare copper conductors, S/FTP, Foam Polyethylene insulation, each pair with Beldfoil® shield, overall tinned copper braid shield (50% coverage), PE jacket

Technical Specifications

Product Overview

Suitable Applications:	Horizontal and building backbone cable; Support current and future Cat. 6a, 7 and 7a applications such as; 25GBase-T (25 Gigabit Ethernet), 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI and ATM, suitable for outdoor use

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs
Individual Shielded Pair	22 AWG	Solid	BC - Bare Copper	4

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Shielded Pair	PE - Polyethylene (Foam)	1.5 mm (0.059 in)	White / Blue, White / Orange, White / Green, White / Brown

Cable Core

Description
4 shielded pairs twisted together

Inner Shield

Element	Shield Type	Material	Coverage
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)	100%

Table Notes:	Aluminum facing outside

Outer Shield

Shield Type	Material	Coverage
Braid	Tinned Copper (TC)	50%

Table Notes:	Aluminium facing outside

Outer Jacket

Material	Nom. Diameter
PE - Polyethylene	7.8 mm (0.31 in)

Overall Cable Diameter (Nominal):	7.8 mm (0.31 in)

Electrical Characteristics

Electricals

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

Delay

Max. Delay Skew	Nom. Velocity of Prop.

25 ns/100m	73%

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]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1 dB/100m	78	75	75.9	72.9	78	75	20	67	67	40	23
4	3.7 dB/100m	78	75	74.3	71.3	78	75	23	67	67	34	15
10	5.8 dB/100m	78	75	72.2	69.2	75.3	72.3	25	67	67	30	10.9
16	7.3 dB/100m	78	75	70.7	67.7	71.2	68.2	25	67	67	28	5.1
31.2	10.3 dB/100m	78	75	67.7	64.7	65.4	62.4	23.6	67	63.3	25.2	
62.5	14.6 dB/100m	78	75	63.4	60.4	59.4	56.4	21.5	67	57.3	22	
100	18.5 dB/100m	75.4	72.4	56.9	53.9	55.3	52.3	20.1	67	53.2	20	
155	23.2 dB/100m	72.5	69.5	49.3	46.3	51.5	48.5	18.8	67	49.4	18.1	
250	29.7 dB/100m	69.4	66.4	39.7	36.7	47.3	44.3	17.3	67	45.2	16	
500	42.8 dB/100m	64.9	61.9	22.2	19.2	41.3	38.3	17.3	67	39.2		
600	47.1 dB/100m	63.7	60.7	16.6	13.6	39.7	36.7	17.3	65.8	37.6		
1000	61.9 dB/100m	60.4	57.4			35.3	32.3	15.1	62.5	33.2		
1300	71.4 dB/100m	58.7	55.7			23.5	20.5	13.9	60.8	30.9		

Table Notes:	Limits below 4MHz and above 1000 MHz are for information only; Reference standard: IEC 61156-5

Transfer Impedance

Frequency
1 MHz
10 MHz
30 MHz
100 MHz

Transfer Impedance Class:	Grade 1
Screening Class:	Type I
Table Notes:	Coupling Attenuation

Voltage

Voltage Rating
72 V DC

Mechanical Characteristics

Temperature

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

Bend Radius

Stationary Min.	Installation Min.
33 mm (1.3 in)	65 mm (2.6 in)

Max. Pull Tension:	105 N (23.6 lbf)
Bulk Cable Weight:	67 kg/km

Standards and Compliance

Environmental Suitability:	Outdoor, Outdoor - Black only, Sunlight Resistance - Black only
CPR Compliance:	CPR Euroclass: Fca
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 7A
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61034-2 - Smoke Density Min Transmittance = 60%
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = d
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU CE Mark
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.

History

Update and Revision:	Revision Number: 0.201 Revision Date: 10-18-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
1888EPE.00500	Black	Reel	500 m	8719605004826
1888EPE.001000	Black	Reel	1,000 m	8719605125187

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