BELDEN



Product: 7965E

Category 6 Cable, 4 Pair, U/UTP, PVC Indoor CPR Eca

Product Description

Category 6 Premise Horizontal Cable (250MHz), 4-Pair, 23 AWG solid bare copper conductors, U/UTP, Polyethylene insulation, PVC jacket, CPR Eca

Technical Specifications

Product Overview

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6 and 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Individual Pair	23 AWG	Solid	BC - Bare Copper	4	8

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Pair	PE - Polyethylene	0.96 mm (0.038 in)	White/Blue & Blue, White/Green & Green, White/Orange & Orange, White/Brown & Brown

Cable Core

Description	Separator
4 pairs twisted together	Center Member (Patented X-Spline®)

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	5.4 mm (0.21 in)

Overall Cable Diameter (Nominal):	5.4 mm (0.21 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.
40 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]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1 dB/100m	75.3	72.3	73.2	70.2	70	67	20	40	35
4	3.8 dB/100m	66.3	63.3	62.4	59.4	58	55	23	34	23
10	6 dB/100m	60.3	57.3	54.3	51.3	50	47	25	30	15
16	7.6 dB/100m	57.2	54.2	49.6	46.6	45.9	42.9	25	28	10.9
20	8.5 dB/100m	55.8	52.8	47.3	44.3	44	41	25	27	9
31.2	10.7 dB/100m	52.9	49.9	42.1	39.1	40.1	37.1	23.6	25.1	5.1

62.5	15.5 dB/100m	48.4	45.4	32.9	29.9	34.1	31.1	21.5	22	
100	19.9 dB/100m	45.3	42.3	25.4	22.4	30	27	20.1	20	
155	25.3 dB/100m	42.4	39.4	17.1	14.1	26.2	23.2	18.8	18.1	
200	29.1 dB/100m	40.8	37.8	11.6	8.6	24	21	18	17	
250	33 dB/100m	39.3	36.3	6.3	3.3	22	19	17.3	16	

Table Notes:	Limits below 4 MHz are for information only. Reference standard: IEC 61156-5
Screening Class:	Type III
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.
23 mm (0.91 in)	46 mm

Max. Pull Tension:	80 N (18 lbf)
Bulk Cable Weight:	37 kg/km

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = a
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: 0.392 Revision Date: 12-12-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
7965E.05A305	Black	Reel-in-Box	305 m	8719605016997
7965E.05500	Black	Reel	500 m	8719605160706
7965E.01B100	Blue	Flat Box	100 m	8719605016942
7965E.01200	Blue	Reel	200 m	8719605016904
7965E.01305	Blue	Reel	305 m	8719605016911
7965E.01A305	Blue	Reel-in-Box	305 m	8719605016935
7965E.01500	Blue	Reel	500 m	8719605016928
7965E.011000	Blue	Reel	1,000 m	8719605016898
7965E.00B100	Gray, RAL 7032	Flat Box	100 m	8719605016881
7965E.00305	Gray, RAL 7032	Reel	305 m	8719605016850
7965E.00A305	Gray, RAL 7032	Reel-in-Box	305 m	8719605016874
7965E.00500	Gray, RAL 7032	Reel	500 m	8719605016867
7965E.001000	Gray, RAL 7032	Reel	1,000 m	8719605016836
7965E.03305	Green	Reel	305 m	8719605016966

7965E.03500	Green	Reel	500 m	8719605016973
7965E.06305	White	Reel	305 m	8719605221612

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