



Part Number: 1583E.001000

Category 5e Nonbonded-Pair Cable

Product Description

Cat. 5e (100MHz), 4-Pair, U/UTP Unshielded, Premise Horizontal Cable, 24 AWG solid bare copper conductors, Polyethylene insulation, PVC jacket, RJ-45 compatible

Technical Specifications

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
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Construction and Dimensions

Conductor:

Element	AWG	Stranding	Material	No. of Pairs
Individual pair	24	Solid	Bare copper	4
Total Number of Conductors:				8
Total Number of Pairs:				4
Min Elongation at Break of Conductors:				10 %

Insulation:

Element	Type	Material	Nominal Diameter
Individual pair	Dielectric	Polyethylene	0.9 mm
Min Elongation at Break of Insulation:			100 %

Color Chart 1:

Number	Color
Pair 1	White/Blue & Blue
Pair 2	White/Orange & Orange
Pair 3	White/Green & Green
Pair 4	White/Brown & Brown

Outerjacket 1:

Material	Nominal Diameter	Diameter +/- Tolerance
PVC	4.8 mm	0.3 mm

Min Elongation at Breakof Jacket:	100 %
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Min Tensile Strength of Jacket:	9 MPa
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Electrical Characteristics

Conductor DCR:

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]	Max. DCR Unbalanced Within Pair [%]
95 Ohm/km	4 %	2 Ohm

Capacitance:

Max. Capacitance Unbalance	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

Min Insulation Resistance:	5000 MOhm*km
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Impedance:

Nominal Characteristic Impedance
100 Ohm

Delay:

Max. Delay Skew	Min. Velocity of Propagation
40 ns/100m	60 %

High Freq:

Element	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 MHz	2.1 dB/100m	65.3 dB	62.3 dB	63.2 dB	60.2 dB	64 dB	61 dB	20 dB	40 dB	35 dB
	4 MHz	4 dB/100m	56.3 dB	53.3 dB	52.32 dB	49.3 dB	52 dB	49 dB	23 dB	34 dB	23 dB
	10 MHz	6.3 dB/100m	50.3 dB	47.3 dB	44 dB	41 dB	44 dB	41 dB	25 dB	30 dB	15 dB
	16 MHz	8 dB/100m	47.2 dB	44.2 dB	39.2 dB	36.2 dB	39.9 dB	36.9 dB	25 dB	28 dB	10.9 dB
	20 MHz	9 dB/100m	45.8 dB	42.8 dB	36.8 dB	33.8 dB	38 dB	35 dB	25 dB	27 dB	9 dB
	31.25 MHz	11.4 dB/100m	42.9 dB	39.9 dB	31.5 dB	28.5 dB	34.1 dB	31.5 dB	23.6 dB	25.1 dB	5.5 dB
	62.5 MHz	16.5 dB/100m	38.4 dB	35.4 dB	21.9 dB	18.9 dB	28.1 dB	25.1 dB	21.5 dB	22 dB	
	100 MHz	21.3 dB/100m	35.3 dB	32.3 dB	14 dB	11 dB	24 dB	21 dB	20.1 dB	20 dB	

); Limits below 4MHz are for information only.

Current:

Max. Recommended Current [A]

1.5 A

Voltage:

Voltage Rating [V]

72 V

Use

Burning Load:	290 kJ/m
Max Recommended Pulling Tension:	65 N

Safety

ISO/IEC Flammability:	IEC 60332-1
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Temperature Range

Installation Temp Range:	0 to +50 °C
Operating Temp Range:	-30 to +60 °C

Mechanical Characteristics

Min Bend Radius During Installation:	40 mm
Min Bend Radius During Operation:	20 mm

Standards

ISO/IEC Compliance:	ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
ANSI Compliance:	ANSI/TIA/EIA 568-B.2-1 (2002)
CENELEC Compliance:	EN 50173-1 (2011)

History

Revision Number:	3
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Product Variants

Part Number	Color	Put-Up Type	Length
1583E.001000	GRAY	Reel	1000 m
1583E.00305	GRAY	Reel	305 m
1583E.003570	GRAY, RAL 7032	Reel	3570 m
1583E.00500	GRAY	Reel	500 m
1583E.00B100	GRAY	Flat Box	100 m
1583E.00U305	GRAY	UnReel	305 m
1583E.011000	BLUE	Reel	1000 m
1583E.01305	BLUE	Reel	305 m
1583E.01500	BLUE	Reel	500 m
1583E.01B100	BLUE	Flat Box	100 m
1583E.01U305	BLUE	UnReel	305 m
1583E.03305	BLACK	Reel	305 m
1583E.03U305	BLACK	UnReel	305 m
1583E.04500	WHITE	Reel	500 m
1583E.04U305	WHITE	UnReel	305 m
1583E.051030	GRAY, RAL 7032	Reel	
1583E.08U305	GRAY	UnReel	305 m
1583E.09305	GREEN	Reel	305 m
1583E.001000	GREEN	Reel	500 m
1583E.09U305	GREEN	UnReel	305 m
1583E.10305	YELLOW	Reel	305 m
1583E.10U305	YELLOW	UnReel	305 m
1583E.11305	RED	Reel	305 m
1583E.11U305	RED	UnReel	305 m
1583E.12B100	WHITE, RAL 9003	Flat Box	100 m
1583E.12U305	WHITE, RAL 9003	UnReel	305 m

1583E.13U305	GRAY, RAL 7032	UnReel	305 m
1583E.001000	GRAY	Reel	305 m
1583E.001000	BLUE	Reel	305 m
1583E.001000	GRAY	Reel	305 m
1583E.001000	GREEN	Reel	305 m
1583E.001000	GRAY	Reel	
1583E=00305	GRAY	Reel	305 m
1583E=00500	GRAY	Reel	500 m
1583E=00U305	GRAY	UnReel	305 m
1583E.001000			

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