Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

7997A Multi-Conductor - Category 5e Nonbonded-Pair Outside Plant Cable



For more Information please call

1-800-Belden1

General Description:

CAT5e (200MHz), 4-Pair, U/UTP-Unshielded, OSP Rated, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Gel-Filled, Polyethylene Jacket

Usage (Overall)

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, 200MHz Category 5e, Outside Plant, Duct

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	Solid	BC - Bare Copper

Total Number of Conductors:	8

Insulation

Insulation Material:

Insulation Material
PO - Polyolefin

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PE - Polyethylene

Outer Jacket Diameter:

Nom. Dia. (mm)
5.740

Pair

Pair Color Code Chart:

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

Mechanical Characteristics (Overall)

Storage Temperature Range:	-40°C To +60°C
Installation Temperature Range:	-20°C To +60°C
Operating Temperature Range:	-40°C To +60°C
Bulk Cable Weight:	38.693 Kg/Km

Max. Recommended Pulling Tension:	155.687 N
Min. Bend Radius/Minor Axis:	58.420 mm
Min. Bend/Installation:	58.420 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	07/01/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 5e - TIA 568.C.2
Other Specification:	REA-200 Approved Jacket Material

Suitability

Suitability - Indoor:	No
Suitability - Outdoor:	Yes
Suitability - Aerial:	Yes - Black only, when supported by messenger wire.
Suitability - Burial:	Yes
Sunlight Resistance:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)
45.934

Maximum Capacitance Unbalance (pF/100 m):	66

Nominal Velocity of Propagation:

VP (%)
65

Max. Delay Skew:

Delay Skew (ns/100 m)
25

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
8.9

Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
3

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)

1	2.0	70.3	68.3	70.3	66.3	20.0
4	4.0	61.3	59.3	59.3	55.3	23.0
8	5.7	56.8	54.8	53.1	49.1	24.5
10	6.4	55.3	53.3	50.9	46.9	25.0
16	8.1	52.2	50.2	46.1	42.1	25.0
20	9.1	50.8	48.8	43.7	39.7	25.0
25	10.2	49.3	47.3	41.1	37.1	24.3
31.25	11.4	47.9	45.9	38.5	34.5	23.6
62.5	16.4	43.4	41.4	29.0	25.0	21.5
100	21.0	40.3	38.3	21.3	17.3	20.1
155	26.6	37.4	35.4	12.9	8.9	18.8
200	30.5	35.8	33.8	7.3	3.3	18.0
*350	41.4	32.1	30.1			16.3
*400	44.6	31.3	29.3			15.9

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.8
8	100 ± 15	100 ± 15	49.7	46.7
10	100 ± 15	100 ± 15	47.8	44.8
16	100 ± 15	100 ± 15	43.7	40.7
20	100 ± 15	100 ± 15	41.8	38.8
25	100 ± 15	100 ± 15	39.8	36.8
31.25	100 ± 15	100 ± 15	37.9	34.9
62.5	100 ± 15	100 ± 15	31.9	28.9
100	100 ± 15	100 ± 15	27.8	24.8
155	100 ± 22	100 ± 15	24.0	21.0
200	100 ± 22	100 ± 15	21.8	18.8
*350	100 ± 22	100 ± 15		
*400	100 ± 22	100 ± 15		

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Verified to ANSI/TIA-568-C.2, Category 5e. * Frequencies above 200 MHz are for reference only

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7997A 0101000	305 MT	12.247 KG	BLACK	C	CAT5E 4PR U/UTP OSP REEL

Notes:
C = CRATE REEL PUT-UP.

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