Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7881A Multi-Conductor - Replaced by 2412





Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

CEC/C(UL) Specification:
EU Directive 2011/65/EU (ROHS II):

EU Directive 2000/53/EC (ELV):

EU CE Mark:

For more Information please call

1-800-Belden1



General Description:

CAT6 (250MHz), 4-Pair, U/UTP-Unshielded, Riser-CMR, Premise Horizontal Cable, 24 AWG solid bare copper conductors, polyolefin insulation, tape separator, Ripcord, PVC jacket

Usage (Overall)	
Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM
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 PVC - Polyvinyl Chloride	
Outer Jacket Diameter: Nom. Dia. (mm)	
5.613	
Outer Jacket Ripcord:	Yes
Overall Cable	
Overall Cabling Fillers:	Center Tape
Pair	
Pair Color Code Chart:	
Number Color	
1 White/Blue Stripe and Blue	
White/Orange Stripe and Orange White/Green Stripe and Green	
White/Green Stripe and Green White/Brown Stripe and Brown	
4 Willter brown Stripe and brown	
Mechanical Characteristics (Overall)	
Bulk Cable Weight:	34.229 Kg/Km
Max. Recommended Pulling Tension:	177.928 N
Min. Bend Radius/Minor Axis:	25.400 mm
Min. Bend/Installation:	55.880 mm

Yes

Yes

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EU Directive 2002/95/EC (RoHS): Yes EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004 EU Directive 2002/96/EC (WEEE): EU Directive 2003/11/EC (BFR): Yes CA Prop 65 (CJ for Wire & Cable): Yes MII Order #39 (China RoHS): Other Specification: Third party verified to Category 6 Flame Test **UL Flame Test:** UL1666 Riser **CSA Flame Test:** FT4 Plenum/Non-Plenum Plenum Number: 7882A

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m) 49.215

Maximum Capacitance Unbalance (pF/100 m): 330

Nominal Velocity of Propagation:

VP (%) 70

Maximum Delay:

Delay (ns/100 m) 537 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m) 45

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m) 8.2

Max. Operating Voltage - UL:

Voltage 300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

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)	Min. SRL (dB)
1	2.000	74.3	72.3	72.3	70.3	20.000	na
4	3.800	65.3	63.3	61.5	59.5	23.000	na
8	5.300	60.8	58.8	55.4	53.4	24.500	na
10	6.000	59.3	57.3	53.3	51.3	25.000	na
16	7.600	56.2	54.3	48.7	46.7	25.000	na
20	8.500	54.8	52.8	46.3	44.3	25.000	na
25	9.500	53.3	51.3	43.8	41.8	24.300	na
31.25	10.700	51.9	49.9	41.2	39.2	23.600	na
62.5	15.400	47.4	45.4	32.0	30.0	21.500	na
100	19.800	44.3	42.3	24.5	22.5	20.100	na
155	25.200	41.5	39.5	16.3	14.3	18.800	na
200	29.000	39.8	37.8	10.8	8.8	18.000	na
250	32.800	38.3	36.3	5.5	3.5	17.300	na
300	36.400	37.1	35.1	0.7		16.800	na
350	39.800	36.1	34.1			16.300	na
400	43.000	35.3	33.3			15.900	na
500	48.900	33.8	31.8			15.200	na
550	51.800	33.2	31.2			14.900	na

Premise Cable Electrical Table 2:

Freq. (MHz) Input (Unfitted) Imp. (Ohms) Fitted Impedance Min. ELFEXT (dB) Min. PSELFEXT (dB)

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1	100 ± 15	100 ± 15	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.7
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 ± 20	100 ± 15	23.9	20.9
200	100 ± 20	100 ± 15	21.8	18.8
250	100 ± 20	100 ± 15	19.8	16.8
300	100 ± 25	100 ± 15	18.3	15.3
350	100 ± 25	100 ± 15	16.9	13.9
400	100 ± 25	100 ± 15	15.8	12.8
500	100 ± 25	100 ± 15	13.8	10.8
550	100 ± 25	100 ± 15		

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2-1, Category 6. US Patents 5424491, 6570095, 6998537.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc

Revision Number: 0 Revision Date: 08-06-2013

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Product.
Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

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