Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7813LC Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable



For more Information please call

1-800-Belden1



General Description:

Min. Bend/Installation:

NEC/(UL) Specification:

NEC Articles:

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

CAT6 (250MHz), 4-Bonded-Pairs, U/UTP-Unshielded, Limited Combustible-FHC 25/50, Plenum-CMP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, FEP Insulation, Central Filler, FEP Jacket

dacket	
Usage (Overall)	
Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6, Environments benefitting from Limited Combustible Cable
Physical Characteristics (Overall)	
Conductor AWG:	
# Pairs AWG Stranding Conductor Material	
4 23 Solid BC - Bare Copper	
Total Number of Conductors:	8
Insulation Insulation Material:	
Insulation Material FEP - Fluorinated Ethylene Propylene	
Outer Shield Outer Shield Material:	
Outer Shield Material Unshielded	
Outer Jacket Outer Jacket Material:	
Teflon FEP - Fluorinated Ethylene Propylene	
Outer Jacket Diameter: Nom. Dia. (in.) 0.214	
Overall Cable	
Overall Cabling Separator Material:	Central Filler
Pair Pair Color Code Chart:	
Number Color	
1 White/Blue Stripe & Blue	
2 White/Orange Stripe & Orange	
White/Green Stripe & Green White/Brown Stripe & Brown	
William online a blown	
Mechanical Characteristics (Overall)	
Operating Temperature Range:	-40°C To +150°C
Bulk Cable Weight:	28 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius/Minor Axis:	0.500 in.

2.100 in.

800

CMP, FHC 25/50

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CEC/C(UL) Specification:	CMP	
EU Directive 2011/65/EU (ROHS II):	Yes	
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class E	
EU CE Mark:	Yes	
EU Directive 2000/53/EC (ELV):	Yes	
EU Directive 2002/95/EC (RoHS):	Yes	
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004	
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 6 - TIA 568.C.2	
Other Specification:	6	

Applicable Patents:

Country Patent
US 5734126

Flame Test

	UL Flame Test:	NFPA 262 Plenum Flame Test (UL910)(FT6), UL723 (NFPA 255)		
	C(UL) Flame Test:	FT6		
	CSA Flame Test:	FT6		
Ple	num/Non-Plenum			
	Plenum (Y/N):	Yes		
	Non-Plenum Number:	2412		

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
15

Maximum Capacitance Unbalance (pF/100 m):

330

Nominal Velocity of Propagation:

VP (%) 72

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)

Max. Operating Voltage - UL:

Voltage 300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
5

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Simos Gusta Electrical Tusto 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	2.0	74.3	72.3	72.3	70.3	20.0	na
4	3.8	65.3	63.3	61.5	59.5	23.0	na
8	5.3	60.8	58.8	55.4	53.4	24.5	na
10	6.0	59.3	57.3	53.3	51.3	25.0	na
16	7.6	56.2	54.3	48.7	46.7	25.0	na
20	8.5	54.8	52.8	46.3	44.3	25.0	na
25	9.5	53.3	51.3	43.8	41.8	24.3	na

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31.25	10.7	51.9	49.9	41.2	39.2	23.6	na
62.5	15.4	47.4	45.4	32.0	30.0	21.5	na
100	19.8	44.3	42.3	24.5	22.5	20.1	na
155	25.2	41.5	39.5	16.3	14.3	18.8	na
200	29.0	39.8	37.8	10.8	8.8	18.0	na
250	32.8	38.3	36.3	5.5	3.5	17.3	na

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	23.9	20.9
200	100 ± 22	100 ± 15	21.8	18.8
250	100 ± 32	100 ± 15	19.8	16.8

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 6.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7813LC 006U1000	1,000 FT	34.000 LB	BLUE, LIGHT		CAT6 4PRB U/UTP LC BOX
7813LC 0061000	1,000 FT	37.000 LB	BLUE, LIGHT	С	CAT6 4PRB U/UTP LC REEL
7813LC 009U1000	1,000 FT	34.000 LB	WHITE		CAT6 4PRB U/UTP LC BOX
7813LC 0091000	1,000 FT	37.000 LB	WHITE	С	CAT6 4PRB U/UTP LC REEL

Notes

C = CRATE REEL PUT-UP.

Revision Number: 6 Revision Date: 02-24-2014

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product.

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