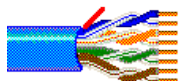


## 7813LC Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable



For more Information  
please call

1-800-Belden1

**General Description:**

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

**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:

Outer Jacket Trade Name	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
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

**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.
Min. Bend/Installation:	2.100 in.

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CMP, FHC 25/50
NEC Articles:	800

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

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

## Plenum/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
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## 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)
8.2

## 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:

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

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

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 006I000	1,000 FT	37.000 LB	BLUE, LIGHT	C	CAT6 4PRB U/UTP LC REEL
7813LC 009U1000	1,000 FT	34.000 LB	WHITE		CAT6 4PRB U/UTP LC BOX
7813LC 009I000	1,000 FT	37.000 LB	WHITE	C	CAT6 4PRB U/UTP LC REEL

**Notes:**

C = CRATE REEL PUT-UP.

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