



**Product:** [7813LC](#)

Category 6 Cable, 4 Bonded-PairS, U/UTP, LC, CMP

### Product Description

Category 6 Premise Horizontal Cable (250MHz), 4 Bonded-Pairs, 23 AWG Solid Bare Copper Conductors, U/UTP, Limited Combustible, Plenum-CMP, FEP Jacket

### Technical Specifications

#### Product Overview

Suitable Applications:	Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE, Environments Requiring Limited Combustible Cable
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .

#### Construction Details

##### Conductor

Size	Stranding	Material	Number of Pairs
23 AWG	Solid	BC - Bare Copper	4

##### Insulation

Material	Color Code
FEP - Fluorinated Ethylene Propylene	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown
Bonded-Pair:	Yes

##### Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Central Filler	FEP - Fluorinated Ethylene Propylene	0.210 in (5.33 mm)	No

Overall Cable Diameter (Nominal):	0.210 in (5.33 mm)
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#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km (25 Ohm/1000ft)	90 pF/100m

##### Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
537 ns/100m	45 ns/100m	72%

##### High Frequency

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]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	20	100 ± 15	100 ± 15
4	3.8 dB/100m	65.3	63.3	61.5	59.5	55.8	52.8	23	100 ± 15	100 ± 15
8	5.3 dB/100m	60.8	58.8	55.4	53.4	49.7	46.7	24.5	100 ± 15	100 ± 15
10	6 dB/100m	59.3	57.3	53.3	51.3	47.8	44.8	25	100 ± 15	100 ± 15
16	7.6 dB/100m	56.2	54.3	48.7	46.7	43.7	40.7	25	100 ± 15	100 ± 15
20	8.5 dB/100m	54.8	52.8	46.3	44.3	41.8	38.8	25	100 ± 15	100 ± 15
25	9.5 dB/100m	53.3	51.3	43.8	41.8	39.8	36.8	24.3	100 ± 15	100 ± 15

31.25	10.7 dB/100m	51.9	49.9	41.2	39.2	37.9	34.9	23.6	100 ± 15	100 ± 15
62.5	15.4 dB/100m	47.4	45.4	32	30	31.9	28.9	21.5	100 ± 15	100 ± 15
100	19.8 dB/100m	44.3	42.3	24.5	22.5	27.8	24.8	20.1	100 ± 15	100 ± 15
155	25.2 dB/100m	41.5	39.5	16.3	14.3	23.9	20.9	18.8	100 ± 22	100 ± 15
200	29.0 dB/100m	39.8	37.8	10.8	8.8	21.8	18.8	18	100 ± 22	100 ± 15
250	32.8 dB/100m	38.3	36.3	5.5	3.5	19.8	16.8	17.3	100 ± 32	100 ± 15

#### Voltage

<b>UL Voltage Rating</b>
300 V (CMP)

### Mechanical Characteristics

#### Temperature

Operating	Installation	Storage
-40°C To +150°C	0°C To +50°C	-20°C To +75°C

#### Bend Radius

Stationary Min.	Installation Min.
0.5 in (13 mm)	2.1 in (53 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	33 lbs/1000ft

### Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Flammability / Reaction to Fire:	NFPA 262 Plenum Flame Test (UL910), UL723 (NFPA 255), FT6, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMP
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-116-732
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
Third Party Performance Verification:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Non-Plenum Number:	2412

### Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Jacket sequentially marked at 2 ft. intervals.
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### History

Update and Revision:	Revision Number: 0.387 Revision Date: 01-20-2023
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### Part Numbers

#### Variants

Item #	Color	Putup Type	Length	UPC
7813LC 006U1000	Blue	UnReel	1,000 ft	612825189855
7813LC 006U1000	Blue	UnReel	1,000 ft	612825189855
7813LC 0061000	Blue	Reel	1,000 ft	612825189862
7813LC 0061000	Blue	Reel	1,000 ft	612825189862
7813LC 009U1000	White	UnReel	1,000 ft	612825189879
7813LC 009U1000	White	UnReel	1,000 ft	612825189879
7813LC 0091000	White	Reel	1,000 ft	612825189886
7813LC 0091000	White	Reel	1,000 ft	612825189886

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