




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 https://www.belden.com/resources/patents .

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	0.214 in (5.44 mm)	No

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km	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)	Max./Min. Fitted Impedance
1	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	20	100 ± 15 Ohm	100 ± 15 Ohm
4	3.8 dB/100m	65.3	63.3	61.5	59.5	55.8	52.8	23	100 ± 15 Ohm	100 ± 15 Ohm
8	5.3 dB/100m	60.8	58.8	55.4	53.4	49.7	46.7	24.5	100 ± 15 Ohm	100 ± 15 Ohm
10	6 dB/100m	59.3	57.3	53.3	51.3	47.8	44.8	25	100 ± 15 Ohm	100 ± 15 Ohm
16	7.6 dB/100m	56.2	54.3	48.7	46.7	43.7	40.7	25	100 ± 15 Ohm	100 ± 15 Ohm
20	8.5 dB/100m	54.8	52.8	46.3	44.3	41.8	38.8	25	100 ± 15 Ohm	100 ± 15 Ohm
25	9.5 dB/100m	53.3	51.3	43.8	41.8	39.8	36.8	24.3	100 ± 15 Ohm	100 ± 15 Ohm
31.25	10.7 dB/100m	51.9	49.9	41.2	39.2	37.9	34.9	23.6	100 ± 15 Ohm	100 ± 15 Ohm
62.5	15.4 dB/100m	47.4	45.4	32	30	31.9	28.9	21.5	100 ± 15 Ohm	100 ± 15 Ohm

100	19.8 dB/100m	44.3	42.3	24.5	22.5	27.8	24.8	20.1	100 ± 15 Ohm	100 ± 15 Ohm
155	25.2 dB/100m	41.5	39.5	16.3	14.3	23.9	20.9	18.8	100 ± 22 Ohm	100 ± 15 Ohm
200	29.0 dB/100m	39.8	37.8	10.8	8.8	21.8	18.8	18	100 ± 22 Ohm	100 ± 15 Ohm
250	32.8 dB/100m	38.3	36.3	5.5	3.5	19.8	16.8	17.3	100 ± 32 Ohm	100 ± 15 Ohm

Voltage

UL Voltage Rating
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:	28 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Plenum, Indoor
Flammability / Reaction to Fire:	NFPA 262 Plenum Flame Test (UL910), UL723 (NFPA 255), FT6, FT6, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMP
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-116-732-2013
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
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: 0.286 Revision Date: 12-15-2021
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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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