



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/patents .

Construction Details

Conductor

Size	Stranding	Material	No. 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)

Electrical Characteristics

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

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

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:	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.
--------	---

History

Update and Revision:	Revision Number: 0.391 Revision Date: 04-29-2024
----------------------	--

Part Numbers

Variants

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

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.