



Part Number: 7812ENH.001000

Category 6 Bonded-Pair Cable

Product Description

Cat. 6 (250MHz), 4-Pair, U/UTP Unshielded, Premise Horizontal Cable, 23 AWG solid bare copper conductors, Polyethylene insulation, LSZH jacket

Product Specifications

AG.Filter Attributes

Total Number of Conductors:	8
-----------------------------	---

Application

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6 and 5e applications, such as 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM
------------------------	--

Cabling1

Description@Cabling1:	4 pairs twisted together
Filler@Cabling1:	Cross Web of Polyolefin

Conductor

Total Number of Pairs:	4
------------------------	---

Technical Specifications

Applicable Patents

Patent:	http://www.belden.com/p
---------	---

Bend Radius

Min Bend Radius During Installation:	52 mm
Min Bend Radius During Operation:	26 mm

CCB-Sub-Material

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	9 MPa

EMEA Standard

CENELEC Compliance:	EN 50173-1 (2011)
---------------------	-------------------

General Electrical Parameters

General Electrical Parameters Header:	Reference standard: ISO/IEC 61156 - 5 ed. 2.0 (2009)
Min Insulation Resistance:	5000 MOhm*km
Dielectric Strength Cond-Cond (2 sec.):	2.5 kV DC

Global Standard

ISO/IEC Compliance:	ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
---------------------	---

History

Revision Number:	3
------------------	---

North American Standard

ANSI Compliance:	ANSI/TIA/EIA 568-B.2-1 (2002)
------------------	-------------------------------

Safety

ISO/IEC Flammability:	IEC 60332-1
Amt of Halogen Acid Gas; Max Conductivity:	10 µS/mm
Amt of Halogen Acid Gas; Min pH:	4.3
Smoke Density; Min Transmittance:	60%

Amt of Halogen IEC 60754-1 /EN50267-1:	Zero
--	------

Use

Burning Load:	565 kJ/m
Max Recommended Pulling Tension:	80 N

Impedance:

Nominal Characteristic Impedance

100 Ohm

Conductor DCR:

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]	Max. DCR Unbalanced Within Pair [%]
95 Ohm/km	4 %	2 Ohm

Color Chart 1:

Number	Color
Pair 1	White/Blue & Blue
Pair 2	White/Orange & Orange
Pair 3	White/Green & Green
Pair 4	White/Brown & Brown

Delay:

Max. Delay Skew	Min. Velocity of Propagation
40 ns/100m	60 %

Voltage:

Voltage Rating [V]

72 V

Current:

Max. Recommended Current [A]

1.5 A

High Freq:

Element	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]	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	75.3 dB	72.3 dB	73.2 dB	70.2 dB	70 dB	67 dB	20 dB	50 dB	35 dB	

4 MHz	3.8 dB/100m	66.3 dB	63.3 dB	62.4 dB	59.4 dB	58 dB	55 dB	23 dB	44 dB	23 dB
10 MHz	6 dB/100m	60.3 dB	57.3 dB	54.3 dB	51.3 dB	50 dB	47 dB	25 dB	40 dB	15 dB
16 MHz	7.6 dB/100m	57.2 dB	54.2 dB	49.6 dB	46.6 dB	45.9 dB	42.9 dB	25 dB	38 dB	10.9 dB
20 MHz	8.5 dB/100m	55.8 dB	52.8 dB	47.3 dB	44.3 dB	44 dB	41 dB	25 dB	37 dB	9 dB
31.2 MHz	10.7 dB/100m	52.9 dB	49.9 dB	42.1 dB	39.1 dB	40.1 dB	37.1 dB	23.6 dB	35.1 dB	5.1 dB
62.5 MHz	15.5 dB/100m	48.4 dB	45.4 dB	32.9 dB	29.9 dB	34.1 dB	31.1 dB	21.5 dB	32 dB	
100 MHz	19.9 dB/100m	45.3 dB	42.3 dB	25.4 dB	22.4 dB	30 dB	27 dB	20.1 dB	30 dB	
155 MHz	25.3 dB/100m	42.4 dB	39.4 dB	17.1 dB	14.1 dB	26.2 dB	23.2 dB	18.8 dB	28.1 dB	
200 MHz	29.1 dB/100m	40.8 dB	37.8 dB	11.6 dB	8.6 dB	24 dB	21 dB	18 dB	27 dB	
250 MHz	33 dB/100m	39.3 dB	36.3 dB	6.3 dB	3.3 dB	22 dB	19 dB	17.3 dB	26 dB	

); Limits below 4MHz are for information only.

Capacitance:

Max. Capacitance Unbalance	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

Insulation:

Element	Type	Material	Nominal Diameter
Individual pair		Dielectric	Polyethylene
			1.1 mm

Outerjacket 1:

Material	Color	Nominal Diameter	Diameter +/- Tolerance
FRNC / LSZH		Grey or Blue	6.1 mm
			0.3 mm

Conductor:

Element	AWG	Stranding	Material	No. of Pairs
Individual pair		23	Solid	Bare copper
				4

Other Electrical Information:

Min Insulation Resistance	5000 MOhm*km
Dielectric Strength Cond-Cond (2 sec.)	2.5 kV DC

Product Variants

Part Number	Color	Put-Up Type	Length
7812ENH.001000	GRAY	Reel	1000 m
7812ENH.00500	GRAY	Reel	500 m
7812ENH.00U305	GRAY	UnReel	305 m
7812ENH.01305	BLUE	Reel	305 m
7812ENH.01500	BLUE	Reel	500 m
7812ENH.01B100	BLUE	Flat Box	100 m
7812ENH.01U305	BLUE	UnReel	305 m
7812ENH.02U305	GRAY	UnReel	
7812ENH.001000	BLUE	Reel	500 m
7812ENH.001000			

© 2017 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 herein 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 "AS IS" 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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure 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. This 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.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.