



Product: [1885ENH](#)

Cat 7+ Cable, S/FTP, LSZH, 4 Pair, AWG 23, Indoor CPR Dca

Product Description

CAT7 (1000MHz), 4-Pair, S/FTP shielded, Premise Horizontal Cable, 23 AWG solid bare copper conductors, Foam Polyolefin insulation, each pair with Beldfoil® shield, overall tinned copper braid shield (30% coverage), LSZH jacket

Technical Specifications

Product Overview

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6a and 7 applications, such as: 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents .

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Pairs
Individual shielded pair	23	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Element	Type	Material	Nominal Diameter
Individual shielded pair	Dielectric	PO - Polyolefin (Foam)	1.45 mm

Bonded-Pair:	No
--------------	----

Color Chart

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

Inner Shield Material

Element	Type	Material	Coverage [%]
Individual shielded pair	Tape	Bi-Laminate (Alum+Poly)	100%

Table Notes:	Aluminum facing outside
--------------	-------------------------

Outer Shield Material

Type	Material	Min. Coverage [%]
Braid	Tinned Copper (TC)	30%

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.0 mm	0.3 mm	Yes

Construction and Dimensions

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

Electrical Characteristics

Conductor DCR

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

Capacitance

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

Impedance

Nominal Characteristic Impedance
100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss	Nom. NEXT [dB]	Nom. PSNEXT [dB]	Nom. ACR [dB]	Nom. PSACR [dB]	Nom. ACRF (ELFEXT) [dB]	Nom. PSACRF (PSELFEXT) [dB]
1 MHz	1.8 dB/100m	103 dB	100 dB	101 dB	98 dB	95 dB	92 dB
4 MHz	3.4 dB/100m	100 dB	97 dB	97 dB	94 dB	94 dB	91 dB
10 MHz	5.5 dB/100m	98 dB	95 dB	92 dB	89 dB	93 dB	92 dB
16 MHz	6.9 dB/100m	97 dB	94 dB	90 dB	87 dB	91 dB	88 dB
31.2 MHz	9.7 dB/100m	95 dB	92 dB	85 dB	82 dB	90 dB	87 dB
62.5 MHz	13.9 dB/100m	94 dB	91 dB	80 dB	77 dB	87 dB	84 dB
100 MHz	17.7 dB/100m	93 dB	90 dB	75 dB	72 dB	85 dB	82 dB
125 MHz	19.9 dB/100m	92 dB	89 dB	72 dB	69 dB	83 dB	80 dB
200 MHz	25.6 dB/100m	91 dB	88 dB	65 dB	64 dB	77 dB	74 dB
250 MHz	28.8 dB/100m	90 dB	87 dB	61 dB	58 dB	74 dB	71 dB
300 MHz	31.8 dB/100m	90 dB	87 dB	58 dB	55 dB	74 dB	71 dB
600 MHz	46.6 dB/100m	89 dB	86 dB	42 dB	39 dB	60 dB	57 dB
1000 MHz	62.2 dB/100m	88 dB	85 dB	26 dB	23 dB	50 dB	47 dB

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
25 ns/100m	78%

High Freq

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 dB/100m	78 dB	75 dB	76 dB	73 dB	78 dB	75 dB	20 dB	40 dB	35 dB
4 MHz	3.7 dB/100m	78 dB	75 dB	74.3 dB	71.3 dB	78 dB	75 dB	23 dB	34 dB	23 dB
10 MHz	5.9 dB/100m	78 dB	75 dB	72.1 dB	69.1 dB	75.3 dB	72.3 dB	25 dB	30 dB	15 dB
16 MHz	7.4 dB/100m	78 dB	75 dB	70.6 dB	67.6 dB	71.2 dB	68.2 dB	25 dB	28 dB	10.9 dB
31.2 MHz	10.4 dB/100m	78 dB	75 dB	67.6 dB	64.6 dB	65.4 dB	62.4 dB	23.6 dB	25.1 dB	5.1 dB
62.5 MHz	14.9 dB/100m	75.5 dB	72.5 dB	60.6 dB	57.6 dB	59.4 dB	56.4 dB	21.5 dB	22 dB	
100 MHz	19 dB/100m	72.4 dB	69.4 dB	53.4 dB	50.4 dB	55.3 dB	52.3 dB	20.1 dB	20 dB	
125 MHz	21.4 dB/100m	70.9 dB	67.9 dB	49.6 dB	46.6 dB	53.4 dB	50.4 dB	19.4 dB	19 dB	
200 MHz	27.5 dB/100m	67.9 dB	64.9 dB	40.4 dB	37.4 dB	49.3 dB	46.3 dB	18 dB	17 dB	
250 MHz	31 dB/100m	66.4 dB	63.4 dB	35.5 dB	32.5 dB	47.3 dB	44.3 dB	17.3 dB	16 dB	
300 MHz	34.2 dB/100m	65.2 dB	62.2 dB	31.1 dB	28.1 dB	45.8 dB	42.8 dB	17.3 dB		
600 MHz	50.1 dB/100m	60.7 dB	57.7 dB	10.6 dB	7.6 dB	39.7 dB	36.7 dB	17.3 dB		
1000 MHz	66.9 dB/100m	57.4 dB	54.4 dB			35.3 dB	32.3 dB	15.1 dB		

Table Notes:	Limits below 4 MHz are for information only.; Values at 1000 MHz are for information only. Reference standard: IEC 61156-5
General Electrical Parameters Notes:	Reference standard: ISO/IEC 61156-5
Coupling Attenuation Class:	Type Ib
Segregation class according EN50174-2:	d

Transfer Impedance

Frequency [MHz]	Description	Transfer Impedance
1 Mhz	Grade 2	Max. 50 mOhm/m
10 Mhz		Max. 100 mOhm/m

30 Mhz		Max. 200 mOhm/m
100 Mhz		Max. 1000 mOhm/m

Current

Max. Recommended Current [A]
1.5 Amps per Conductor

Voltage

Voltage Rating [V]
72 V

Temperature Range

Installation Temp Range:	0°C To +50°C
Operating Temp Range:	-30°C To +60°C

Mechanical Characteristics

Bulk Cable Weight:	52 kg/km
Max. Pull Tension:	85 N
Min Bend Radius During Installation:	58 mm
Min Bend Radius During Operation:	29 mm

Standards

IEC Compliance:	ISO/IEC 11801-1
CPR Euroclass:	Dca-s2,d1,a1
CENELEC Compliance:	EN 50173-1
Data Category:	Category 7
ANSI Compliance:	ANSI/TIA 568.2-D (2018)
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Dca
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01

Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
Burning Load:	500 kJ/m
IEC 60754-1 (EN50267-1)- Halogen Amount:	Zero
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 (EN 61034-2) (VDE 0482-1034) - Smoke Density Min. Transmittance:	60%

Part Number

Variants

Item #	Color	Putup Type	Length	EAN
1885ENH.01B100	Blue	Flat Box	100 m	8719605004642
1885ENH.01500	Blue	Reel	500 m	8719605004635
1885ENH.011000	Blue	Reel	1,000 m	8719605004628
1885ENH.00B100	Gray, RAL 7032	Flat Box	100 m	8719605004611
1885ENH.03500	Gray, RAL 7032	Reel	500 m	8719605004673
1885ENH.K0500	Gray, RAL 7032	Reel	500 m	8719605170347
1885ENH.001000	Gray, RAL 7032	Reel	1,000 m	8719605004604
1885ENH.K6500	Green	Reel	500 m	8719605170354
1885ENH.05500	Orange	Reel	500 m	8719605004697
1885ENH.051000	Orange	Reel	1,000 m	8719605155559
1885ENH.04500	Red	Reel	500 m	8719605004680
1885ENH.02500	Yellow	Reel	500 m	8719605004666
1885ENH.021000	Yellow	Reel	1,000 m	8719605004659

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.
--------	--

History

Update and Revision:	Revision Number: 0.296 Revision Date: 02-17-2021
----------------------	--

© 2021 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.