

Part Number: 1888ELV

Cat 7A+ Cable, S/FTP, LSZH, 4 Pair, AWG 22, Indoor CPR B2ca

Product Description

CAT7A (1200MHz), 4-Pair, S/FTP shielded, Premise Horizontal Cable, 22 AWG solid bare copper conductors, Foam Polyolefin insulation, each pair with Beldfoil® shield, overall tinned copper braid shield (50% coverage), LSZH jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor - Euroclass B2ca
Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6a, 7 and 7a applications: 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Pairs
Individual shielded pair	22	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	22 AWG

Insulation

Element	Type	Material	Nominal Diameter
Individual shielded pair	Dielectric	FPE - Foamed Polyethylene	1.6 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	Aluminum / Polyester	100 %

InnerShield, Table Note:	Aluminum facing outside

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance	Ripcord
LSZH / FRNC	8.1 mm	0.3 mm	Yes

Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %

Min Elongation at Breakof Insulation:	100 %

Cabling

Description
4 shielded pairs twisted together

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 Ohm

Capacitance

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

Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
25 ns/100m	73 %

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. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	78 dB	75 dB	75.9 dB	72.9 dB	78 dB	75 dB	20 dB	67 dB	67 dB	40 dB	23 dB
4 MHz	3.7 dB/100m	78 dB	75 dB	74.3 dB	71.3 dB	78 dB	75 dB	23 dB	67 dB	67 dB	34 dB	15 dB
10 MHz	5.8 dB/100m	78 dB	75 dB	72.2 dB	69.2 dB	75.3 dB	72.3 dB	25 dB	67 dB	67 dB	30 dB	10.9 dB
16 MHz	7.3 dB/100m	78 dB	75 dB	70.7 dB	67.7 dB	71.2 dB	68.2 dB	25 dB	67 dB	67 dB	28 dB	5.1 dB
31.2 MHz	10.3 dB/100m	78 dB	75 dB	67.7 dB	64.7 dB	65.4 dB	62.4 dB	23.6 dB	67 dB	63.3 dB	25.2 dB	
62.5 MHz	14.6 dB/100m	78 dB	75 dB	63.4 dB	60.4 dB	59.4 dB	56.4 dB	21.5 dB	67 dB	57.3 dB	22 dB	
100 MHz	18.5 dB/100m	75.4 dB	72.4 dB	56.9 dB	53.9 dB	55.3 dB	52.3 dB	20.1 dB	67 dB	53.2 dB	20 dB	
155 MHz	23.2 dB/100m	72.5 dB	69.5 dB	49.3 dB	46.3 dB	51.5 dB	48.5 dB	18.8 dB	67 dB	49.4 dB	18.1 dB	
250 MHz	29.7 dB/100m	69.4 dB	66.4 dB	39.7 dB	36.7 dB	47.3 dB	44.3 dB	17.3 dB	67 dB	45.2 dB	16 dB	
500 MHz	42.8 dB/100m	64.9 dB	61.9 dB	22.2 dB	19.2 dB	41.3 dB	38.3 dB	17.3 dB	67 dB	39.2 dB		
600 MHz	47.1 dB/100m	63.7 dB	60.7 dB	16.6 dB	13.6 dB	39.7 dB	36.7 dB	17.3 dB	65.8 dB	37.6 dB		
1000 MHz	61.9 dB/100m	60.4 dB	57.4 dB	-1.5 dB	-4.5 dB	35.3 dB	32.3 dB	15.1 dB	62.5 dB	33.2 dB		
1200 MHz	68.4 dB/100m	59.2 dB	56.2 dB	-9.1 dB	-12.1 dB	33.7 dB	30.7 dB	14.3 dB				

High Freq Table Note:	Limits below 4MHz are for information only; Values at 1000 MHz are for information only
Coupling Attenuation Class:	Type I
Segregation class according EN50174-2:	d

Transfer Impedance

Frequency [MHz]	Description	Transfer Impedance
1 Mhz	Grade 1	Max. 10 mOhm/m
10 Mhz		Max. 10 mOhm/m
30 Mhz		Max. 30 mOhm/m
100 Mhz		Max. 100 mOhm/m

Current

Max. Recommended Current [A]
1.5 A

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:	70 kg/km
Max Recommended Pulling Tension:	105 N
Min Bend Radius During Installation:	65 mm
Min Bend Radius During Operation:	33 mm

Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
CPR Euroclass:	B2ca-s1,d1,a1
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 7A
ANSI Compliance:	ANSI/TIA/EIA 568-C.2 (2009)
IEEE Specification:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2016-12-19

Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2
Burning Load:	700 kJ/m
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero

Part Number

Variants

Item #	Color
1888ELV.00500	Gray

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

History

Revision Number:	1

© 2019 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.