

Part Number: 1888ENH

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

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 Dca
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 %

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:	67 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:	Dca-s2,d1,a1
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 7A
ANSI Compliance:	ANSI/TIA/EIA 568-C.2 (2009)

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2018-05-29

Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1
Burning Load:	650 kJ/m
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero

Part Number

Variants

Item #	Color
1888ENH.00500	Gray

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

History

Revision Number:	6

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