

Cat. 7_A 2x(4x2x23/1 AWG) FIG-8 S/FTP FR-LZSH IEC 60332-3

COMPUTER & LAN

P/N 99XG508122

TELECOM

Applications

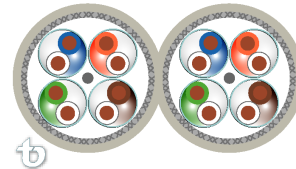
Data-Centers/SANs, Indoor Backbone, Indoor use, fixed installations, High bandwidth digital applications with low BER, High data rates, Optimized for IEEE 802.3bt 4PPoE, Compliance with low voltage safety earth-connection and grounding regulations



Outer Jacket Material
FR-LSZH



Weight
131 kg/km



General Construction

The cable is optimized for the new 10 GBase-T applications.

The cable contains two groups of 4 individually aluminum-foil screened twisted pairs (aluminum face upwards), cabled with drain conductor, and overall braid-shielded. The two groups are laid in a parallel FIG-8 ('Siamese') formation and jacketed with FR-LSZH compound.

The cable exceeds the requirements of IEC 61156-5 Cat. 7_A (1000 MHz), Cat. 7 (600 MHz), Cat. 6_A (500 MHz), Cat. 6 (250 MHz) and Cat. 5e.

The cable complies with EN 50575:2014 D_{ca} s1,d1,a1

Design & Materials

Conductor Material	Annealed Bare Copper
Conductor Size (AWG)	23
Conductor Construction	Solid
Insulation Material	Cellular PO
Insulation O.D. (mm nom)	1.38
Conductor Unit Identification	Solid Color
Color Code	Per TIA/EIA 568-B
Ind. Shield Material	Aluminum/Polyester Foil
Ind. Shield Design	Aluminum face outwards
Conductor Unit Lay-Up	Pairs
Drain-Wire 2 Material	Annealed Tinned Copper
Drain-Wire 2 Construction	Solid
Overall Shield Design	Braid
Overall Shield Material	Tinned-copper braid
Overall Braid Shield	Yes
Overall Braid Material	Annealed Tinned Copper

Cat. 7_A 2x(4x2x23/1 AWG) FIG-8 S/FTP FR-LZSH IEC 60332-3
 P/N 99XG508122

TELECOM

Braid Coverage (% nom)	55
Overall Drain-wire Material	Annealed Tinned Copper
Overall Drain-wire size (mm)	0.41
Overall Drain-wire Construction	Solid
Total Number Of Conductors	16
Outer Jacket Dimension – X (mm nom)	16.0
Outer Jacket Dimension – Y (mm nom)	8.1
Outer Jacket Color	Light Gray
Other Jacket Colors Available	Yes
Marking	Teldor Standard Per request

Performance

Frequency Range (MHz)	1 - 1500
Impedance (Ω)	100
Transfer Impedance Grade	Grade 1
Coupling Attenuation	Type I
Max. DC Resistance (Ω/km@20°C)	63
Max. Resistance Unbalance (%)	2
Capacitance Unbalance (pF/m max)	1.2
Velocity of Propagation (% nom)	78
Propagation Delay Skew (ns/100m max)	20
Dielectric Strength (V/minute)	700
Dielectric Strength to Shield (V/minute)	700
Min. Insulation Resistance (GΩ•km)	5
Max. Installation Tensile Load (N max.)	180
Min. Bend Radius (mm)	80 (small axis)
Min. Operating Temperature (°C)	-40
Max. Operating Temperature (°C)	+70

Standards

Flammability Rating

IEC 60332-1
 IEC 60332-3
 IEC 60332-3-22
 IEC 60754-1/2
 IEC 61034-1/2
 UL 1581 VW-1

Applicable Standards

IEC 61156
 IEEE 802.3at (PoE+)
 IEEE 802.3an 10GBASE-T 10 Gigabit Ethernet
 IEEE 802.3bt (4PPoE)
 ISO/IEC 11801-1
 RoHS 3 2015/863/EU
 RoHS 3 2015/863/EU



Electrical Properties

Cat. 7_A Horizontal Cables*

Freq. MHz	Attenuation dB/100m 20°C	PS NEXT Loss dB	NEXT Loss dB	RL dB	PS ANEXT dB	PS ELFEXT dB	ELFEXT dB

Cat. 7_A 2x(4x2x23/1 AWG) FIG-8 S/FTP FR-LZSH IEC 60332-3
P/N 99XG508122

TELECOM

	Typical Value	Cat. 7 _A	Typical Value	Cat. 7 _A	Typical Value	Cat. 7 _A	Typical Value	Cat. 7 _A	Typical Value	Cat. 7 _A	Typical Value	Cat. 7 _A	Typical Value	Cat. 7 _A
1	2.0	2.0	107.0	105.4	110.0	108.4	22.0	20.0	70.0	67.0	95.0	75.0	98.0	78.0
4	3.6	3.8	98.0	96.3	101.0	99.3	25.0	23.0	70.0	67.0	90.0	75.0	93.0	78.0
10	5.7	5.8	95.0	90.4	98.0	93.4	28.0	25.0	70.0	67.0	86.0	71.0	89.0	74.0
20	8.0	8.2	90.0	85.9	93.0	88.9	28.0	25.0	70.0	67.0	80.0	65.0	83.0	68.0
30	9.8	10.1	90.0	83.2	93.0	86.2	27.0	23.8	70.0	67.0	76.0	61.5	79.0	64.5
100	18.0	18.5	80.0	75.4	83.0	78.4	24.0	21.1	70.0	62.5	66.0	51.0	69.0	54.0
150	22.1	22.8	80.0	72.7	83.0	75.7	22.0	18.8	68.0	59.8	63.0	47.5	66.0	50.5
200	25.6	26.5	80.0	70.8	83.0	73.8	21.0	18.0	68.0	58.0	60.0	45.0	63.0	48.0
250	28.7	29.7	77.0	69.4	80.0	72.4	20.0	17.3	65.0	56.5	58.0	43.0	61.0	46.0
300	31.7	32.7	77.0	68.2	80.0	71.2	19.0	17.3	65.0	55.3	52.0	41.5	55.0	44.5
400	36.8	38.0	72.0	66.3	75.0	69.3	19.0	17.3	65.0	53.4	49.0	38.9	52.0	41.9
500	41.4	42.7	72.0	64.9	75.0	67.9	19.0	17.3	65.0	52.0	47.0	37.0	50.0	40.0
600	45.6	47.1	72.0	63.7	75.0	66.7	19.0	17.3	65.0	50.8	45.0	35.4	48.0	38.4
1000	60.0	62.0	72.0	60.4	75.0	63.4	19.0	17.3	65.0	47.5	39.0	31.0	42.0	34.0

*Supplied cables meet the minimum Cat. 7_A transmission requirements as per IEC 61156-5 Ed. 2

Teldor Cables & Systems Ltd. ("Teldor") reserves the right to make changes to the products described in this catalog without prior notice. Teldor does not assume any liability which may occur due to the use of the products described herein. Drawings may not be to scale and are provided for general and informational purposes only. The information contained in this catalog is the proprietary property of Teldor, and may not be used, reproduced or disclosed to others, in whole or in part, without the written authorization of Teldor.

Version 1.6 | Last update: 2024-06-05