

Cat. 7_A 4x2x23/1 AWG S/FTP FR-LSZH

COMPUTER & LAN

P/N 99XG544103

TELECOM

Applications

Data-Centers/SANs, Indoor use, fixed installations, High bandwidth digital applications with low BER, High data rates, Optimized for IEEE 802.3bt 4PPoE



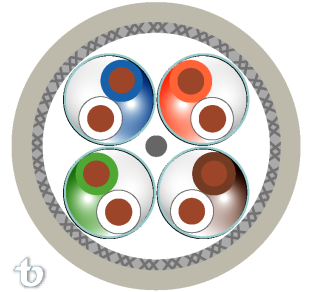
Outer Jacket Material
FR-LSZH



Outer diameter
7.3 mm nom.



Weight
60 kg/km



General Construction

The cable contains 4 individually aluminum-foil screened twisted pairs (aluminum face upwards), cabled with a drain conductor and overall braid-shielded to an S/FTP form.

Cable transmission performance is tested up to 1200 MHz, exceeding 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.

Design & Materials

Conductor Material	Annealed Bare Copper
Conductor Size (AWG)	23
Conductor Construction	Solid
Insulation Material	SFS PO
Insulation O.D. (mm nom)	1.35
Conductor Unit Identification	Solid/stripe
Color Code	Per TIA/EIA 568-B
Ind. Shield Material	Aluminum/Polyester Foil
Ind. Shield Design	Helically applied aluminum foil, 100% coverage
Conductor Unit Lay-Up	Pairs
Overall Shield Design	Braid
Overall Shield Material	Tinned-copper braid
Overall Braid Shield	Yes
Overall Braid Material	Annealed Tinned Copper
Braid Coverage (% nom)	40
Overall Drain-wire Material	Annealed Tinned Copper
Overall Drain-wire size (mm)	0.41

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Overall Drain-wire Construction	Solid
Total Number Of Conductors	8
Outer Jacket Color	Red
Other Jacket Colors Available	Yes
Marking	Teldor Standard Per request

Performance

Frequency Range (MHz)	1 - 1200
Impedance (Ω)	100
Transfer Impedance Grade	Grade 1
Coupling Attenuation	Type I
Max. DC Resistance (Ω/km@20°C)	73
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.)	200
Min. Bend Radius (mm)	70
Min. Operating Temperature (°C)	-40
Max. Operating Temperature (°C)	+70

Standards

Flammability Rating
IEC 60332-1

UL 1581 VW-1

EN 50575:2014 E_{Ca}s1d1a1 (CPR)

Applicable Standards

IEC 61156

IEEE 802.3af (PoE)

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



Electrical Properties

Cat. 7_A Horizontal Cables*

Freq. MHz	Attenuation dB/100m 20°C		NEXT Loss dB		PS-NEXT Loss dB		RL dB		PS ANEXT dB		PS ELFEXT dB		ELFEXT dB	
	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	1.8	2.0	103.0	78.0	100.0	75.0	31.0	20.0	100.0	67.0	108.0	75.0	110.0	78.0
4	3.2	3.8	103.0	78.0	100.0	75.0	31.0	23.0	100.0	67.0	105.0	75.0	108.0	78.0
10	4.9	5.8	103.0	78.0	100.0	75.0	31.0	25.0	100.0	67.0	100.0	71.0	103.0	74.0
20	7.0	8.2	103.0	78.0	100.0	75.0	31.0	25.0	100.0	67.0	90.0	65.0	93.0	68.0
30	8.6	10.1	103.0	78.0	100.0	75.0	31.0	23.8	100.0	67.0	90.0	61.5	93.0	64.5

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100	15.7	18.5	103.0	78.0	100.0	75.0	31.0	21.1	100.0	62.5	85.0	51.0	88.0	54.0
150	19.4	22.8	103.0	78.0	100.0	75.0	26.0	18.8	95.0	59.8	84.0	47.5	87.0	50.5
200	22.5	26.5	98.0	76.8	95.0	73.8	26.0	18.0	95.0	58.0	80.0	45.0	83.0	48.0
250	25.3	29.7	96.0	75.4	93.0	72.4	25.0	17.3	92.0	56.5	78.0	43.0	81.0	46.0
300	27.8	32.7	95.0	74.2	92.0	71.2	25.0	17.3	92.0	55.3	75.0	41.5	78.0	44.5
400	32.3	38.0	94.0	72.3	91.0	69.3	23.0	17.3	92.0	53.4	70.0	38.9	73.0	41.9
500	36.3	42.7	93.0	70.9	90.0	67.9	23.0	17.3	90.0	52.0	69.0	37.0	72.0	40.0
600	40.0	47.1	92.0	69.7	89.0	66.7	23.0	17.3	90.0	50.8	68.0	35.4	71.0	38.4
1000	52.7	62.0	88.0	66.4	85.0	63.4	21.0	17.3	90.0	47.5	67.0	31.0	70.0	34.0

Transfer impedance: Grade 1 per IEC 61156-5

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

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