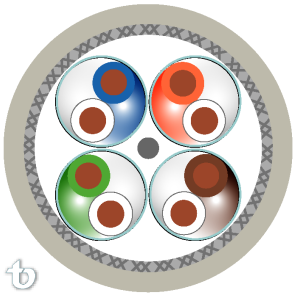
Cat. 7_A 4x2x23/1 AWG S/FTP FR-LSZH IEC60332-3

COMPUTER & LAN
P/N 99XG504103

TELECOM

Applications

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



Outer Jacket Material	Outer diameter	Weight
FR-LSZH	8.1 mm nom.	66 kg/km

General Construction

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

Design & Materials

Conductor Material	Annealed Bare Copper
Conductor Size (AWG)	23
Conductor Construction	Solid
Insulation Material	SFS PO
Insulation O.D. (mm nom)	1.38
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
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	8

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Outer Jacket Color	Red
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)	73
Max. Resistance Unbalance (%)	2
Capacitance (pF/m)	44
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.)	130
Min. Bend Radius (mm)	70
Min. Operating Temperature (°C)	-40
Max. Operating Temperature (°C)	+70
UV Resistance	Yes

Standards

Flammability Rating
IEC 60332-1
IEC 60332-3
UL 1581 VW-1

Applicable Standards
IEC 61156
IEC 61156-5
IEEE 802.3af (PoE)
IEEE 802.3at (PoE+)
IEEE 802.3an 10GBASE-T 10 Gigabit Ethernet
IEEE 802.3bt (4PPoE)
ISO/IEC 11801-1
ANSI/TIA-568-C.2
RoHS 3 2015/863/EU

Electrical Properties

IEC 33
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

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

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

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