

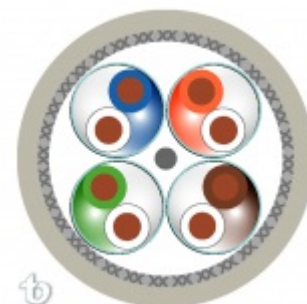
Cat.6_A 4x2x23/1 S/FTP LSZH-SHF1

Part Number: 9MG0545129

Applications: Offshore installations, Maritime Environment, Telecom systems, Optimized for IEEE 802.3bt 4PPoE, High data rates, Indoor/Outdoor use, fixed installations, Ships, High speed & Light craft

General Construction: 4 individually foil-shielded twisted pairs with solid conductors, cabled together, overall braid-shield and jacketed.

Outer Jacket Material: FR-LSZH
Outer Diameter: 8.0 mm nom.
Weight: 72 kg/km



Design & Materials

Conductor Material:	Annealed Bare Copper
Conductor Size:	23 AWG
Conductor Construction:	Solid
Insulation Material:	Cellular PO
Insulation O.D.:	1.38 mm nom.
Conductor unit identification:	Solid Color
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 Braid Material:	Annealed Tinned Copper
Braid Coverage:	55 % nom.
Overall Drain-wire Material:	Annealed Tinned Copper
Overall Drain-wire size:	0.41 mm
Overall Drain-wire Construction:	Solid
Total number of conductors:	8
Outer Jacket Color:	Light Gray
Other Jacket Colors Available:	Yes
Marking:	Per request

Standards

Applicable Standards:	DNV-GL certified, ABS certified, LLOYDS certified, RMRS certified, IEC 60092-359, IEC 60092-351, IEC 61156-5, IEEE 802.3at (PoE+), IEEE 802.3af (PoE), IEEE 802.3bt (4PPoE), ISO/IEC 11801-1, RoHS 3 2015/863/EU
Flammability Rating:	IEC 60332-1, IEC 60332-3-22, IEC 60332-3 , IEC 60754-2, IEC 60754-1/2, IEC 61034-1/2, UL 1581 VW-1

Electrical Properties:

Cat. 6_A Screened-pair 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	
	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A
1	2.0	2.0	95.0	72.3	98.0	75.3	22.0	20.0	70.0	67.0	85.0	65.0	88.0	68.0
4	3.7	3.8	95.0	63.3	98.0	66.3	25.0	23.0	70.0	67.0	73.0	53.0	76.0	56.0
10	5.6	5.9	95.0	57.3	98.0	60.3	28.0	25.0	70.0	67.0	65.0	45.0	68.0	48.0
20	7.9	8.4	90.0	52.8	93.0	55.8	28.0	25.0	70.0	67.0	59.0	39.0	62.0	42.0
30	9.7	10.3	85.0	50.1	88.0	53.1	27.0	23.8	70.0	67.0	55.4	35.4	58.4	38.4
100	18.0	19.1	80.0	42.3	83.0	45.3	24.0	21.1	67.0	62.5	45.0	25.0	48.0	28.0
150	22.4	23.6	78.0	39.7	81.0	42.7	22.0	18.8	66.0	59.8	41.5	21.5	44.5	24.5
200	26.0	27.6	78.0	37.8	81.0	40.8	21.0	18.0	65.0	58.0	49.0	19.0	52.0	22.0
250	29.4	31.0	75.0	36.3	78.0	39.3	20.0	17.3	63.0	56.5	37.0	17.0	40.0	20.0
300	32.5	34.3	75.0	35.1	78.0	38.1	19.0	17.3	62.0	55.3	35.5	15.5	38.5	18.5
400	38.0	40.0	70.0	33.3	73.0	36.3	19.0	17.3	61.0	53.4	33.0	13.0	36.0	16.0
500	43.0	45.2	70.0	31.8	73.0	34.8	19.0	17.3	59.0	52.0	31.0	11.0	34.0	14.0

*Supplied cables meet the minimum Cat. 6_A transmission requirements as per IEC 61156-5 Ed. 2

Performance

Frequency Range:	1 - 500 MHz
Impedance:	100 Ω
Transfer Impedance:	Grade 1
Coupling Attenuation:	Type I
DC Resistance:	73 Ω/km nom.
Max. Resistance Unbalance:	2 %
Capacitance Unbalance:	1.2 pF/m max.
Velocity of Propagation:	78 % nom.
Propagation Delay Skew:	25 ns/100m max.
Dielectric Strength:	700 V/minute
Dielectric Strength to Shield:	700 V/minute
Min. Insulation Resistance :	5 GΩ•km
Min. Bend Radius:	80 mm
Max. Operating Temperature:	+ 85 °C
Min. Operating Temperature:	- 40 °C
UV Resistance:	Yes