Cat. 6_A 4x2x23/7 S/FTP LSZH-SHF1

Part Number: **9MG0550129**

Applications: Offshore installations, Maritime Environment, Enhanced thermal performance for all PoE applications, Optimized for IEEE 802.3bt 4PPoE, High data rates, Ships, High speed & Light craft, Indoor & Outdoor Use, Fixed or Portable Installation

General Construction: S/FTP shielded, SHF1 marine type cable made with 4 individually aluminum foil shielded twisted pairs with stranded conductors, cabled together, overall copper braid-shield and jacketed.

Outer Jacket Material: FR-LSZH
Outer Diameter: 8.6 mm nom.
Weight: 87 kg/km

Design & Materials

Conductor Material:	Annealed Tinned Copper
Conductor Size:	23 AWG
Conductor Construction:	7x0.22 mm
Insulation Material:	Cellular PO
Insulation O.D.:	1.48 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:	70 % nom.
Total number of conductors:	8
Outer Jacket Thickness:	0.9 mm nom.
Outer Jacket Color:	Light Gray
Marking:	Per request

Standards

Applicable Standards:	DNV-GL certified, ABS certified, LLOYDS certified, RMRS certified, IEC 60092-360, 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 61034-1/2, UL 1581 VW-1

Electrical Properties:

Cat. 6_A Work Area 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	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	2.1	87.0	72.3	90.0	75.3	22.0	20.0	70.0	67.0	85.0	65.0	88.0	68.0
4	3.8	87.0	63.3	90.0	66.3	25.0	23.0	70.0	67.0	73.0	53.0	76.0	56.0
10	5.9	87.0	57.3	90.0	60.3	30.0	25.0	70.0	67.0	65.0	45.0	68.0	48.0
20	8.3	87.0	52.8	90.0	55.8	30.0	25.0	70.0	67.0	59.0	39.0	62.0	42.0
30	10.5	87.0	50.1	90.0	53.1	27.0	23.8	70.0	67.0	55.4	35.4	58.4	38.4
100	19.5	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	24.4	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	28.0	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	31.4	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	34.5	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	40.7	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	46.0	70.0	31.8	73.0	34.8	19.0	17.3	61.0	52.0	31.0	11.0	34.0	14.0

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