

Cat.7 4x2x23/1 S/FTP LSZH-SHF1

Part Number: 9MG0543xxx

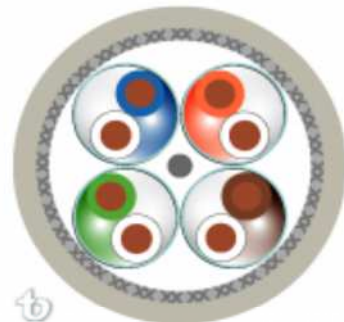
Applications: Offshore installations, Maritime Environment, Indoor use, fixed installations, High data rates, Ships, High speed & Light craft

General Construction: Category 7 , S/FTP, SHF1 marine type cable constructed with 4 individually foil-shielded twisted pairs with solid conductors, cabled together, overall braid-shield and jacketed.
The cable is certified by DNV / DNV-GL FILE NO. E-13122 and by ABS FILE NO. 14-GE1164406-1.

Outer Jacket Material: FR-LSZH

Outer Diameter: 7.9 mm nom.

Weight: 70 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:	Grey
Marking:	Standard

Standards

Applicable Standards: IEC 60092-359, IEC 60092-350, IEC 61156-5, IEEE 802.3at (PoE+), ISO/IEC 11801, RoHS-2 2011/65/EU

Flamability Rating: IEC 60332-1, IEC 60332-3-22, IEC 60332-3 , IEC 60754-2, IEC 61034-1/2, UL 1581 VW-1

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Electrical Properties: Cat. 7 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. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7	Typical Value	Cat. 7
1	2.0	2.0	105.0	75.0	108.0	78.0	22.0	20.0	68.0	N/A	95.0	75.0	98.0	78.0
4	3.6	3.7	98.0	75.0	101.0	78.0	25.0	23.0	68.0	N/A	90.0	75.0	93.0	78.0
10	5.6	5.8	95.0	75.0	98.0	78.0	28.0	25.0	68.0	N/A	86.0	71.0	89.0	74.0
20	7.9	8.3	90.0	75.0	93.0	78.0	28.0	25.0	68.0	N/A	80.0	65.0	83.0	68.0
30	9.7	10.2	85.0	75.0	88.0	78.0	27.0	23.8	68.0	N/A	76.0	61.5	79.0	64.5
100	18.0	19.0	80.0	69.4	83.0	72.4	24.0	21.1	68.0	N/A	66.0	51.0	69.0	54.0
150	22.4	23.6	78.0	66.7	81.0	69.7	22.0	18.8	65.0	N/A	63.0	47.5	66.0	50.5
200	26.0	27.5	78.0	65.0	81.0	68.0	21.0	18.0	65.0	N/A	60.0	45.0	63.0	48.0
250	29.4	31.0	75.0	63.4	78.0	66.4	20.0	17.3	62.0	N/A	58.0	43.0	61.0	46.0
300	32.5	34.2	75.0	62.2	78.0	65.2	19.0	17.3	62.0	N/A	52.0	41.5	55.0	44.5
400	38.0	40.0	70.0	60.4	73.0	63.4	19.0	17.3	62.0	N/A	49.0	38.9	52.0	41.9
500	43.0	45.2	70.0	58.9	73.0	61.9	19.0	17.3	62.0	N/A	47.0	37.0	50.0	40.0
600	47.6	50.1	70.0	57.7	73.0	60.7	19.0	17.3	62.0	N/A	45.0	35.4	48.0	38.4

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

Performance

Frequency Range:	1 - 600 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
Tensile Strength - Short Term:	130 N max.
Min. Bend Radius:	80 mm
Max. Operating Temperature:	+ 85 °C
Min. Operating Temperature:	- 40 °C
UV resistance:	Yes