

Low-loss, 50 Ohm, 8 GHz, 85°C, Ø4.98 mm, LSFH jacket

SPUMA_195-FR-AM

Properties

- Halogen free cable with standard dimensions
- Ozone, UV and weathering resistance
- Bus qualified



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper	Wire	0.94 mm
Dielectric	SPE (Foamed Polyethylene)		2.83 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	2.95 mm
Outer conductor	Copper, Tin plated	Braid	3.52 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	4.98 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 8 GHz
Capacitance	90.8 pF/m
Inductance	0.2 μH/m
Velocity of signal propagation	76.1 %
Signal delay	4.54 ns/m
Screening effectiveness	90 dB at frequency 6GHz
Insulation resistance	1000000 MΩ*m
Operating Voltage (at sea level)	≤ 0.5 kVrms
Test voltage (50 Hz/1 min)	≤ 1 kVrms

Mechanical data	
Weight	approx. 39.7 g/m
Static bending radius	≥ 10 mm
Repeated bending radius	40 mm

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Fire characteristics	free of halogenes, acc. standard IEC 60754

Additional Information

ISO 6722-1 5.22 (UN ECE-R 118.01) compliant.

Suitable connectors

Cable group	X27
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Ordering information

Item number	Item description	Available as assembly only
85069658	SPUMA_195-FR-AM	No

Power Matrix

Calculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

a coefficient typical =	0.3754	b coefficient typical =	0.0169
fmax =	8	P at 1 GHz =	160
Frequency GHz	Nom. attenuation (dB/m)	Nom. attenuation (dB/ft)	CW power (W)
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.10	0.120	0.037	506
0.20	0.171	0.052	358
0.40	0.244	0.074	253
0.60	0.301	0.092	207
1.00	0.392	0.120	160
1.50	0.485	0.148	131
2.00	0.565	0.172	113
6.00	1.021	0.311	65
6.50	1.067	0.325	63
7.00	1.112	0.339	60
7.50	1.155	0.352	58
8.00	1.197	0.365	57

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