

Low-loss, 50 Ohm, 8 GHz, 85°C, ø12.78 mm, LSFH jacket

SPUMA_500-FR-01

Properties

- Halogen free cable with standard dimensions
- Low smoke
- Ozone, UV and weathering resistance
- CPR qualified
- Railway qualified



Construction			
Component	Material	Detail	Diameter
Centre conductor	Aluminium / Copper	Wire	3.58 mm
Dielectric	SPE (Foamed Polyethylene)		9.43 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	9.55 mm
Outer conductor	Copper, Tin plated	Braid, 90%	10.36 mm
	LSFH (modified polyethylene)	RAL 9005 - bk	12.78 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 8 GHz
Capacitance	77.4 pF/m
Inductance	0.2 μH/m
Velocity of signal propagation	86 %
Signal delay	3.87 ns/m
Screening effectiveness	90 dB at frequency 6GHz
Insulation resistance	1000000 MΩ*m
Operating Voltage (at sea level)	≤ 1.2 kVrms
Test voltage (50 Hz/1 min)	≤ 2 kVrms

Mechanical data	
Weight	approx. 178 g/m
Static bending radius	≥ 34 mm
Repeated bending radius	130 mm

Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
CPR class	Eca

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Environmental data	
Flame propagation standard	EN 60332-1-2 IEC 60332-3-24
Fire characteristics	free of halogenes, acc. standard IEC 60754
Smoke test	EN 61034-2
UV resistance	ISO 4892-2A

Additional Information
EN 45545-2 compliant hazard level for indoor cables: HL3.

Suitable connectors	
Cable group	X31

Ordering information		
Item number	Item description	Available as assembly only
85021564	SPUMA_500-FR-01	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 =	0.1051	b coefficient typical =	0.0059
fmax =	8	P at 1 GHz =	750
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	0.034	0.010	2372
0.20	0.048	0.015	1677
0.40	0.069	0.021	1186
0.60	0.085	0.026	968
1.00	0.111	0.034	750
1.50	0.138	0.042	612
2.00	0.160	0.049	530
6.00	0.293	0.089	306
6.50	0.306	0.093	294
7.00	0.319	0.097	283
7.50	0.332	0.101	274
8.00	0.344	0.105	265

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