

Low-loss, 50 Ohm, 6 GHz, 85°C, ø6.17 mm, LSFH jacket

SPUMA_240-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	Copper	Wire	1.42 mm
Dielectric	SPE (Foamed Polyethylene)		3.82 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	3.94 mm
Outer conductor	Copper, Tin plated	Braid, 94%	4.52 mm
	LSFH (modified polyethylene)	RAL 9005 - bk	6.17 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	78.9 pF/m
Inductance	0.2 μH/m
Velocity of signal propagation	82.6 %
Signal delay	4.05 ns/m
Screening effectiveness	90 dB at frequency 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	12.63 Ω/km
Operating Voltage (at sea level)	≤ 0.9 kVrms
Test voltage (50 Hz/1 min)	≤ 1.5 kVrms

Mechanical data	
Weight	approx. 61 g/m
Static bending radius	≥ 14 mm
Repeated bending radius	53 mm

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
CPR class	B2ca-s1a,d0,a1
Flame propagation standard	IEC 60332-1 IEC 60332-3-25
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 NFPA-130 compliant.

Suitable connectors

Cable group	X28
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Ordering information

Item number	Item description	Available as assembly only
85021563	SPUMA_240-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 =	0.25984	b coefficient typical =	0.00926
fmax =	6	P at 1 GHz =	260
Frequency	Nom. attenuation	Nom. attenuation	CW power
GHz	(dB/m)	(dB/ft)	(W)
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.10	0.080	0.025	822
0.20	0.120	0.036	581
0.40	0.170	0.051	411
0.60	0.210	0.063	336
1.00	0.270	0.082	260
1.50	0.330	0.101	212
2.00	0.390	0.118	184
6.00	0.690	0.211	106

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