

Flexible RF cable Spuma_240-RS-FR Item: 85089188

Description

Spuma: Flexible, low-loss RF cables (LMR* alternatives)

High-flexible, 50 Ohm, 6 GHz, 85°C, ø6.17 mm, TPU jacket, flame retardant, railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Strand, Low-loss	1.42 mm
Dielectric	SPE (Foamed Polyethylene)		3.81 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	3.94 mm
Outer conductor	Copper, Tin plated	Braid, 94 %	4.52 mm
Jacket	TPU (Urethane TPE)	RAL 9005 - bk	6.17 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 240-RS-FR 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	81 pF/m
Velocity of signal propagation	85 %
Signal delay	4.05 ns/m
Screening effectiveness	≥ 90 dB (up to 6 GHz)
Operating voltage	≤ 0.9 kV _{rms} (at sea level)
Test voltage	1.5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		5.4 kg/100 m
Min. bending radius	static	14 mm
		53 mm
Abrasion test	EN 50305, 5.2	

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, IEC 60332-3-25
Smoke density test	EN 61034-2
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2012/19/EU (WEEE)	no special marking needed

Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL2 NFPA-130 compliant. An operating temperature of -55°C is feasible for static applications. *) LMR is a registered trademark of Times Microwave Inc.

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	X34 4 mm / 50 Ohm
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Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.276

b = 0.0165

f_{max} = 6

P at 1GHz = 230

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (W) sea level 40° C ambient temperature
0,3	0,16	0,048	420
0,6	0,22	0,068	297
0,9	0,28	0,084	242
1,2	0,32	0,098	210
1,5	0,36	0,111	188
1,8	0,4	0,122	171
2,1	0,43	0,132	159
2,4	0,47	0,142	148
2,7	0,5	0,152	140
3,0	0,53	0,161	133
3,3	0,56	0,169	127
3,6	0,58	0,178	121
3,9	0,61	0,186	116
4,2	0,63	0,194	112
4,5	0,66	0,201	108
4,8	0,68	0,208	105
5,1	0,71	0,216	102
5,4	0,73	0,223	99
5,7	0,75	0,230	96
6,0	0,78	0,236	94