

Flexible RF cable

Spuma_400-RS-FR

Item: 85089191

Description

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

High-flexible, 50 Ohm, 6 GHz, 85°C, ø10.25 mm, TPU jacket, flame retardant, railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Strand, Low-loss	2.74 mm
Dielectric	SPE (Foamed Polyethylene)		7.24 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	7.4 mm
Outer conductor	Copper, Tin plated	Braid, 91 %	8.15 mm
Jacket	TPU (Urethane TPE)	RAL 9005 - bk	10.25 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 400-RS-FR 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	78 pF/m
Velocity of signal propagation	85 %
Signal delay	3.9 ns/m
Screening effectiveness	≥ 90 dB (up to 6 GHz)
Operating voltage	≤ 1.6 kV _{rms} (at sea level)
Test voltage	3 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	14.2 kg/100 m
Min. bending radius	static 25 mm 100 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	X32 7 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 = 0.1439

b = 0.0061

f_{max} = 6

P at 1GHz = 560

Frequency	Nom. attenuation	Nom. attenuation	Max. 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
0,3	0,08	0,025	1022
0,6	0,12	0,035	723
0,9	0,14	0,043	590
1,2	0,16	0,050	511
1,5	0,19	0,057	457
1,8	0,2	0,062	417
2,1	0,22	0,067	386
2,4	0,24	0,072	361
2,7	0,25	0,077	341
3,0	0,27	0,082	323
3,3	0,28	0,086	308
3,6	0,29	0,090	295
3,9	0,31	0,094	284
4,2	0,32	0,098	273
4,5	0,33	0,101	264
4,8	0,34	0,105	256
5,1	0,36	0,109	248
5,4	0,37	0,112	241
5,7	0,38	0,115	235
6,0	0,39	0,119	229

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