

Flexible RF cable SPUMA_400-FR-01

Item: 84132035

Description

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

50 Ohm, 8 GHz, 85°C, ø10.25 mm, LSFH jacket, Flame retardant,
Railway and CPR qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Aluminium / Copper	Wire	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, 78 %	8.15 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	10.25 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 400-FR-01 50 Ohm Cca-s2,d2,a1 (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 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	11.5 kg/100 m
Min. bending radius	static 25 mm 100 mm

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Cold bend test	MIL-C-17 § 4.8.19
Uv resistance test	ISO 4892-2A
Flame propagation test	UL 1581 § 1100, UL 1581 § 1080 (VW-1), EN 60332-1-2, EN 50266-2-5, IEC 60332-3-25
Smoke density test	EN 61034-2
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed
2011/305/EU (CPR)	compliant, Cca-s2,d2,a1

Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL3 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	U30 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 = 0.1241

b = 0.008

 $f_{\max} = 8$

P at 1GHz = 600

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
0.4	0.08	0.025	949
0.8	0.12	0.036	671
1.2	0.15	0.044	548
1.6	0.17	0.052	474
2.0	0.19	0.058	424
2.4	0.21	0.064	387
2.8	0.23	0.070	359
3.2	0.25	0.075	335
3.6	0.26	0.081	316
4.0	0.28	0.085	300
4.4	0.3	0.090	286
4.8	0.31	0.095	274
5.2	0.32	0.099	263
5.6	0.34	0.103	254
6.0	0.35	0.107	245
6.4	0.37	0.111	237
6.8	0.38	0.115	230
7.2	0.39	0.119	224
7.6	0.4	0.123	218
8.0	0.42	0.126	212

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