

Flexible RF cable

SPUMA_500-FR-01

Item: 85021564

Description

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

50 Ohm, 8 GHz, 85°C, ø12.78 mm, LSFH jacket, Flame retardant,

Railway and CPR qualified



Technical Data

Construction

	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
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	12.78 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 500-FR-01 50 Ohm Eca (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 GHz
Capacitance	77.4 pF/m
Velocity of signal propagation	86 %
Signal delay	3.87 ns/m
Screening effectiveness	≥ 90 dB (up to 6 GHz)
Operating voltage	≤ 1.2 kV _{rms} (at sea level)
Test voltage	2 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	17.8 kg/100 m
Min. bending radius	static 34 mm 130 mm

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Uv resistance test	ISO 4892-2A
Flame propagation test	EN 60332-1-2, IEC 60332-3-24
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, Eca

Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL3 NPFA-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	X31 9 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 = 0.1051

b = 0.0059

f_{max} = 8

P at 1GHz = 750

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	0.07	0.021	1186
0.8	0.1	0.030	839
1.2	0.12	0.037	685
1.6	0.14	0.043	593
2.0	0.16	0.049	530
2.4	0.18	0.054	484
2.8	0.19	0.059	448
3.2	0.21	0.063	419
3.6	0.22	0.067	395
4.0	0.23	0.071	375
4.4	0.25	0.075	358
4.8	0.26	0.079	342
5.2	0.27	0.082	329
5.6	0.28	0.086	317
6.0	0.29	0.089	306
6.4	0.3	0.093	296
6.8	0.31	0.096	288
7.2	0.32	0.099	280
7.6	0.33	0.102	272
8.0	0.34	0.105	265