Data Sheet

Flexible RF cable
SPUMA_500-FR-01

Description

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

50 Ohm, 6 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 (PA no.)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 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
	repeated	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)	compliant
2006/1907/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.

Ordering Information

Order as	SPUMA_500-FR-01

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*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a =	0.1051	b =	0.0059	f_{max} =	6	P at 1GHz =	750

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	0,06	0,018	1369
0,6	0,08	0,026	968
0,9	0,11	0,032	791
1,2	0,12	0,037	685
1,5	0,14	0,042	612
1,8	0,15	0,046	559
2,1	0,16	0,050	518
2,4	0,18	0,054	484
2,7	0,19	0,057	456
3,0	0,2	0,061	433
3,3	0,21	0,064	413
3,6	0,22	0,067	395
3,9	0,23	0,070	380
4,2	0,24	0,073	366
4,5	0,25	0,076	354
4,8	0,26	0,079	342
5,1	0,27	0,082	332
5,4	0,28	0,084	323
5,7	0,28	0,087	314
6,0	0,29	0,089	306

Waiver: Fact and figures herein are for information only and do not represent any warranty of any kind.