Data Sheet

Flexible RF cable
SPUMA_240-FR-01

Description

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

50 Ohm, 6 GHz, 85°C, ø6.17 mm, LSFH jacket, Flame retardant, Railway and CPR qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Wire	1.42 mm
Dielectric	SPE (Foamed Polyethylene)		3.82 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	3.94 mm
Outer conductor	Copper, Tin plated	Braid, 94 %	4.52 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	6.17 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 240-FR-01 50 Ohm B2ca-s1a,d0,a1 (PA no.)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		78.9 pF/m
Velocity of signal propagation		82.6 %
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		6.1 kg/100 m
Min. bending radius	static	14 mm
	repeated	53 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	IEC 60332-1, IEC 60332-3-25
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, B2ca-s1a,d0,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.

Ordering Information

Order as	SPUMA_240-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	X28 4 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 =	0.25984	b =	0.00926	f_{max} =	6	P at 1GHz =	260

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	0,15	0,044	475
0,6	0,21	0,063	336
0,9	0,25	0,078	274
1,2	0,3	0,090	237
1,5	0,33	0,101	212
1,8	0,37	0,111	194
2,1	0,4	0,121	179
2,4	0,42	0,129	168
2,7	0,45	0,138	158
3,0	0,48	0,146	150
3,3	0,5	0,153	143
3,6	0,53	0,160	137
3,9	0,55	0,167	132
4,2	0,57	0,174	127
4,5	0,59	0,181	123
4,8	0,61	0,187	119
5,1	0,63	0,193	115
5,4	0,65	0,199	112
5,7	0,67	0,205	109
6,0	0,69	0,211	106

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