

## Flexible RF cable

**SPUMA\_240-FR-01**

**Item: 85021563**

## 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 Cca-s1,d0,a1 (production order number)

### 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 <sub>rms</sub> (at sea level)
Test voltage	1.5 kV <sub>rms</sub> (50 Hz/1 min)

### Mechanical Data

Weight		6.1 kg/100 m
Min. bending radius	static	14 mm
		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 - 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-s1,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.

### 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:  $(a \cdot f^{0.5} + b \cdot f)$  ] and maximum Power CW [ formula:  $(p/f^{0.5})$  ]

Coefficients:

a = 0.257

b = 0.009

f<sub>max</sub> = 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	0.14	0.044	475
0.6	0.2	0.062	336
0.9	0.25	0.077	274
1.2	0.29	0.089	237
1.5	0.33	0.100	212
1.8	0.36	0.110	194
2.1	0.39	0.119	179
2.4	0.42	0.128	168
2.7	0.45	0.136	158
3.0	0.47	0.144	150
3.3	0.5	0.151	143
3.6	0.52	0.158	137
3.9	0.54	0.165	132
4.2	0.56	0.172	127
4.5	0.59	0.179	123
4.8	0.61	0.185	119
5.1	0.63	0.191	115
5.4	0.65	0.197	112
5.7	0.66	0.203	109
6.0	0.68	0.208	106