

Flexible RF cable

SPUMA_195-FR-01

Item: 85021562

Description

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

50 Ohm, 8 GHz, 85°C, ø4.98 mm, LSFH jacket, Flame retardant, Railway and CPR qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Wire	0.94 mm
Dielectric	SPE (Foamed Polyethylene)		2.83 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	2.95 mm
Outer conductor	Copper, Tin plated	Braid, 92 %	3.52 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	4.98 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 195-FR-01 50 Ohm Eca (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 GHz
Capacitance	90.8 pF/m
Velocity of signal propagation	76.1 %
Signal delay	4.54 ns/m
Screening effectiveness	≥ 90 dB (up to 6 GHz)
Operating voltage	≤ 0.5 kV _{rms} (at sea level)
Test voltage	1 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	3.97 kg/100 m
Min. bending radius	static 10 mm 40 mm

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, EN 50305, 9.1.2
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 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	X27 3 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 = 0.3754

b = 0.0169

 $f_{\max} = 8$

P at 1GHz = 160

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	0.24	0.074	253
0.8	0.35	0.106	179
1.2	0.43	0.132	146
1.6	0.5	0.153	126
2.0	0.56	0.172	113
2.4	0.62	0.190	103
2.8	0.68	0.206	96
3.2	0.73	0.221	89
3.6	0.77	0.236	84
4.0	0.82	0.249	80
4.4	0.86	0.263	76
4.8	0.9	0.275	73
5.2	0.94	0.288	70
5.6	0.98	0.300	68
6.0	1.02	0.311	65
6.4	1.06	0.322	63
6.8	1.09	0.333	61
7.2	1.13	0.344	60
7.6	1.16	0.355	58
8.0	1.2	0.365	57

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