

Flexible RF cable

S_10162_B-11 Item: 23002145

Description

S: Low loss RF cables with foam PE dielectrics

50 Ohm, 8 GHz, 85°C, ø12.9 mm, LSFH jacket, Flame retardant, Railway qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper clad Aluminum	Wire	3.8 mm
Dielectric	SPE (Foamed Polyethylene)		9.9 mm
Outer conductor	Copper	longitudinal Foil, 100%	10 mm
Outer conductor	Copper	Braid, 80 %	10.8 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	12.9 mm +/- 0.2

Print: HUBER+SUHNER S 10162 B-11 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	8 GHz
Capacitance	77 pF/m
Velocity of signal propagation	87 %
Signal delay	3.85 ns/m
Screening effectiveness	≥ 90 dB (up to 7.5 GHz)
Operating voltage	≤ 1.7 kV _{rms} (at sea level)
Test voltage	3.4 kV _{rms} (50 Hz/1 min)
Phase vs Temperature	-40°C... + 70°C
Phase vs Bending	2 °/GHz

Mechanical Data

Weight	15 kg/100 m
Min. bending radius	static
	100 mm
	200 mm

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Uv resistance test	ISO 4892-2A
Flame propagation test	IEC 60332-1, EN 60332-1-2, EN 50266-2-4, IEC 60332-3-24, BS 4066-3, NF C 32-070 C2
Smoke density test	EN 61034-2
Toxicity test	BS 6853 Annex B
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

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.

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group S39 10 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 = 0.0826

b = 0.0129

$f_{\max} = 8$

P at 1GHz = 700

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
0.4	0.06	0.017	1107
0.8	0.08	0.026	783
1.2	0.11	0.032	639
1.6	0.13	0.038	553
2.0	0.14	0.043	495
2.4	0.16	0.048	452
2.8	0.17	0.053	418
3.2	0.19	0.058	391
3.6	0.2	0.062	369
4.0	0.22	0.066	350
4.4	0.23	0.070	334
4.8	0.24	0.074	320
5.2	0.26	0.078	307
5.6	0.27	0.082	296
6.0	0.28	0.085	286
6.4	0.29	0.089	277
6.8	0.3	0.092	268
7.2	0.31	0.096	261
7.6	0.33	0.099	254
8.0	0.34	0.103	247