

Coaxial Cable

SUCOFEED_3/8_HF_FR

Description

Copper outer conductor, 50 Ohm, 12 GHz, 85°C, Ø10.8 mm, LSFH jacket, Flame retardant, CPR qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper clad Aluminum	Wire	typ. 2.8 mm
Dielectric	SPE (Foamed Polyethylene)		typ. 7 mm
Outer conductor	Copper	Tube, corrugated 100%	typ. 9.5 mm
Jacket	LSFH (modified polyethylene)	RAL 9011 - graphite black	10.8 mm +/- 0.2

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Electrical Data

Impedance	50 Ω +/- 1
Operating Frequency	≤ 12 GHz
Capacitance	typ. 79.5 pF/m
Inductance	typ. 0.2 μH/m
Velocity of signal propagation	typ. 83 %
Signal delay	typ. 4 ns/m
Insulation resistance	≥ 5 x 10 ⁶ MΩm
Screening effectiveness	≥ 120 dB
Operating voltage	≤ 0.9 kVrms (at sea level)
Test voltage	2 kVrms (50 Hz/1 min) _{rms}
Outer conductor resistance DC	≤ 4.99 Ω/km
Inner conductor resistance DC	≤ 4.23 Ω/km

Mechanical Data

Weight	≤ 13.2 kg/100 m
Bending Radius	static
Bending Radius	repeated (for ≤ 15 bendings)
Tensile strength	≥ 25 mm
Bending force moment	≥ 50 mm
	≤ 500 N
	≤ 2.3 Nm

Environmental Data

Temperature range	-40 °C... +85 °C
Installation temperature	-20 °C... +60 °C
Flammability	IEC 60332-1, IEC 60332-3 (A),
Smoke density	IEC 61034
Halogen test	IEC 60754-2
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
2011/305/EU (CPR)	compliant, B2ca-s1a,d0,a1

Additional Information

Remarks

(For details contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	M7 7 mm / 50 Ohm
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Suitable Tools

Suitable Grounding Kit

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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 = 0.123422675 typ.

b = 0.009884948 typ.

f_{max.} = 12

P ≤ at 1GHz = 540

Frequency (GHz)	Nom. attenuation (dB / 100 m)	Nom. attenuation (dB / 100 ft)	Max. CW power (watt)
	sea level 20° C ambient temperature	sea level 20° C ambient temperature	sea level 40° C ambient temperature
0,100	4,00	1,22	1708
0,150	4,93	1,50	1394
0,200	5,72	1,74	1207
0,400	8,20	2,50	854
0,450	8,72	2,66	805
0,500	9,22	2,81	764
0,700	11,02	3,36	645
0,800	11,83	3,61	604
0,900	12,60	3,84	569
1,000	13,33	4,06	540
1,500	16,60	5,06	441
1,700	17,77	5,42	414
1,800	18,34	5,59	402
2,000	19,43	5,92	382
2,200	20,48	6,24	364
2,500	21,99	6,70	342
2,800	23,42	7,14	323
3,300	25,68	7,83	297
3,500	26,55	8,09	289
4,000	28,64	8,73	270
5,000	32,54	9,92	241
6,000	36,16	11,02	220
7,000	39,57	12,06	204
8,000	42,82	13,05	191

Matrix typical Return Loss

Frequency Range (MHz)	Frequency Range (MHz)	Frequency Range (MHz)	Frequency Range (MHz)
380 to 470	806 to 960	1710 to 2200	5 to 3000
typ. 28.5 dB	typ. 26.9 dB	typ. 25.6 dB	typ. 21 dB