Data Sheet

HUBER+SUHNER

Coaxial Cable
SUCOFEED_1/2_HF_FR

Description

Copper outer conductor, 50 Ohm, 10 GHz, 85°C, ø13.4 mm, LSFH jacket, Flame retardant, CPR qualified



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper clad Aluminum	Wire	typ. 3.6 mm
Dielectric	SPE (Foamed Polyethylene)		typ. 9 mm
Outer conductor	Copper	Tube, corrugated100%	typ. 12.2 mm
Jacket	LSFH (modified polyethylene)	RAL 9011 - graphite black	13.4 mm +/- 0.2

Print: HUBER+SUHNER_SUCOFEED_1/2_HF_FR_#batch-number#_#metric-length#

Electrical Data

Impedance	50 Ω +/- 1
Operating Frequency	≤ 10 GHz
Capacitance	typ. 80.3 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	≤ 1.27 kVrms (at sea level)
Test voltage	2.5 kVrms (50 Hz/1 min)$_{rms}$
Outer conductor resistance DC	≤ 3.9 Ω/km
Inner conductor resistance DC	≤ 2.9 Ω/km

Mechanical Data

Weight		≤ 20 kg/100 m
Bending Radius	static	≥ 25 mm
Bending Radius	repeated (for ≤ 15 bendings)	≥ 50 mm
Tensile strength		≤ 700 N
Bending force moment		≤ 2.7 Nm

Environmental Data

Temperature range	-40 °C... +85 °C
Installation temperature	-25 °C... +60 °C
Flammability	IEC 60332-1, IEC 60332-3 (A), EN 60332-1-2
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	M9 9 mm / 50 Ohm

Suitable Tools

Suitable Grounding Kit

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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 =	0.09872015 typ.	b =	0.0094205 typ.	$f_{max.}$ =	10	P ≤ at 1GHz =	830

Frequency (GHz)	Nom. attenuation (dB / 100 m) sea level 20° C ambient temperature	Nom. attenuation (dB / 100 ft) sea level 20° C ambient temperature	Max. CW power (watt) sea level 40° C ambient temperature
0,100	3,22	0,98	2625
0,150	3,96	1,21	2143
0,200	4,60	1,40	1856
0,400	6,62	2,02	1312
0,450	7,05	2,15	1237
0,500	7,45	2,27	1174
0,700	8,92	2,72	992
0,800	9,58	2,92	928
0,900	10,21	3,11	875
1,000	10,81	3,30	830
1,500	13,50	4,12	678
1,700	14,47	4,41	637
1,800	14,94	4,55	619
2,000	15,85	4,83	587
2,200	16,72	5,09	560
2,500	17,96	5,48	525
2,800	19,16	5,84	496
3,300	21,04	6,41	457
3,500	21,77	6,63	444
4,000	23,51	7,17	415
5,000	26,78	8,16	371
6,000	29,83	9,09	339
7,000	32,71	9,97	314
8,000	35,46	10,81	293

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

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