Data Sheet

HUBER+SUHNER

Coaxial Cable
SUCOFEED_1_5/8_LA

Description

Copper outer conductor, 50 Ohm, 2.75 GHz, 85°C, ø50 mm, PE jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Tube, corrugated	typ. 17.6 mm
Dielectric	SPE (Foamed Polyethylene)		typ. 41 mm
Outer conductor	Copper	Tube, corrugated100%	typ. 46.5 mm
Jacket	PE-LD (Low-density polyethylene)	RAL 9005 - bk	50 mm +/- 0.6

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Electrical Data

Impedance	50 Ω +/- 1
Operating Frequency	≤ 2.75 GHz
Capacitance	typ. 72.5 pF/m
Inductance	typ. 0.19 µH/m
Velocity of signal propagation	typ. 89 %
Signal delay	typ. 3.8 ns/m
Insulation resistance	≥ 3 x 10^6 MΩm
Screening effectiveness	≥ 120 dB
Operating voltage	≤ 5.5 kVrms (at sea level)
Test voltage	10 kVrms (50 Hz/1 min)$_{rms}$
Outer conductor resistance DC	≤ 0.52 Ω/km
Inner conductor resistance DC	≤ 1.1 Ω/km

Mechanical Data

Weight		≤ 110 kg/100 m
Bending Radius	static	≥ 300 mm
Bending Radius	repeated (for ≤ 15 bendings)	≥ 500 mm
Tensile strength		≤ 2500 N
Bending force moment		≤ 45 Nm

Environmental Data

Temperature range	-55 °C... +85 °C
Installation temperature	-40 °C... +60 °C
Halogen test	IEC 60754-1
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant

Additional Information

Remarks

(For details contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	M43 42 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 =	0.01939035 typ.	b =	0.00309646 typ.	$f_{max.}$ =	2.75	P ≤ at 1GHz =	4100

Frequency	Nom. attenuation	Nom. attenuation	Max. CW power
(GHz)	(dB / 100 m)	(dB / 100 ft)	(watt)
	sea level 20° C ambient temperature	sea level 20° C ambient temperature	sea level 40° C ambient temperature
0,100	0,64	0,20	12965
0,150	0,80	0,24	10586
0,200	0,93	0,28	9168
0,400	1,35	0,41	6483
0,450	1,44	0,44	6112
0,500	1,53	0,47	5798
0,700	1,84	0,56	4900
0,800	1,98	0,60	4584
0,900	2,12	0,65	4322
1,000	2,25	0,69	4100
1,500	2,84	0,87	3348
1,700	3,05	0,93	3145
1,800	3,16	0,96	3056
2,000	3,36	1,02	2899
2,200	3,56	1,08	2764
2,500	3,84	1,17	2593
2,800	4,11	1,25	2450

Matrix typical Return Loss

Frequency Range	Frequency Range	Frequency Range	Frequency Range
(MHz)	(MHz)	(MHz)	(MHz)
380 to 470	806 to 960	1710 to 2200	5 to 2700
typ. 28.4 dB	typ. 25.1 dB	typ. 25.1 dB	typ. 20 dB

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