

Flexible RF cable

S_02162_B Item: 22512310

Description

S: Low loss RF cables with foam PE dielectrics

50 Ohm, 6 GHz, 85°C, ø3.15 mm, LSFH jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper	Strand-07	0.8 mm
Dielectric	SPE (Foamed Polyethylene)		2.1 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	2.15 mm
Outer conductor	Copper, Tin plated	Braid, 75 %	2.65 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	3.15 mm +/- 0.05

Print: HUBER+SUHNER S 02162 B 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	82 pF/m
Velocity of signal propagation	81 %
Signal delay	4.08 ns/m
Screening effectiveness	≥ 80 dB (up to 6 GHz)
Operating voltage	≤ 0.25 kV _{rms} (at sea level)
Test voltage	0.5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		2.5 kg/100 m
Min. bending radius	static	16 mm
	repeated (for ≤ 500 bendings)	30 mm
	dynamic	50 mm
Tensile stress test	VW TL 821 33	
Load test	IEC 794-1-E3	
Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified	

Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Cold bend test	VW TL 821 33
Ageing test	VW TL 821 33
Thermal stress test	IEC 61196-1 § 10.9
Flame propagation test	IEC 60332-1,
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
Flex life test	MIL-T-81490 - §4.7.15 - prod. II - modified

Additional Information

Remarks

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

Suitable Connectors

Cable group	S9 2 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 = 0.435

b = 0.1019

f_{max} = 6

P at 1GHz = 82

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
0,3	0,27	0,082	150
0,6	0,4	0,121	106
0,9	0,5	0,154	86
1,2	0,6	0,183	75
1,5	0,69	0,209	67
1,8	0,77	0,234	61
2,1	0,84	0,257	57
2,4	0,92	0,280	53
2,7	0,99	0,302	50
3,0	1,06	0,323	47
3,3	1,13	0,343	45
3,6	1,19	0,363	43
3,9	1,26	0,383	42
4,2	1,32	0,402	40
4,5	1,38	0,421	39
4,8	1,44	0,440	37
5,1	1,5	0,458	36
5,4	1,56	0,476	35
5,7	1,62	0,494	34
6,0	1,68	0,511	33