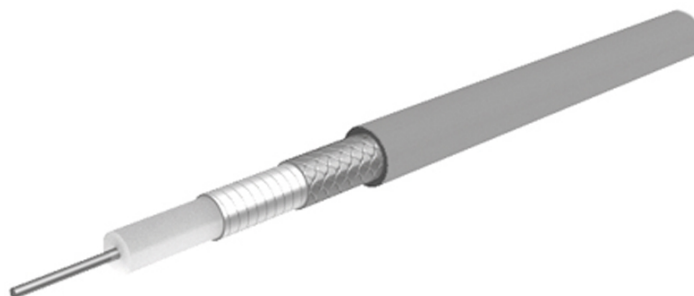


Flexible RF cable SUCOFLEX_102

Description

SUCOFLEX 100: The flexible, high-performance microwave assemblies

50 Ohm, 46 GHz, 165°C, Ø4 mm, FEP jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	
Dielectric	PTFE-LD		
Outer conductor	Copper, Silver plated	wrapped Foil, 100%	
Outer conductor	Copper, Silver plated	Braid	
Jacket	FEP (Fluorinated ethylene propylene)	RAL 5000 - bl	4 mm

Electrical Data

Impedance		50 Ω
Operating Frequency		46 GHz
Capacitance		87 pF/m
Velocity of signal propagation		77 %
Signal delay		4.3 ns/m
Insulation resistance		≥ 1 x 10 ⁸ MΩm
Min. screening effectiveness		≥ 90 dB (up to 18 GHz)
Max. operating voltage		≤ 1.4 kV _{rms} (at sea level)
Phase vs Temperature	-55°C... + 125°C	

Mechanical Data

Weight		4 kg/100 m
Min. bending radius	static	12 mm
	dynamic	20 mm

Environmental Data

Temperature range	-55 °C... +165 °C
Flammability	MIL-T-87104 § 4.6.4.8,
2011/65/EU (RoHS)	compliant

Additional Information

Ordering Information

Order as SUCOFLEX_102 (available only as assembly)

Remarks

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

Suitable Connectors

Cable group U98 SUCOFLEX

Flexible RF cable SUCOFLEX_102

Matrix typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

Coefficients:

a = 0.37

b = 0.0071

f_{max} = 46

P at 1GHz = 394

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 (watt) sea level 40° C ambient temperature
2,3	0,58	0,176	260
4,6	0,83	0,252	184
6,9	1,02	0,311	150
9,2	1,19	0,362	130
11,5	1,34	0,407	116
13,8	1,47	0,449	106
16,1	1,6	0,487	98
18,4	1,72	0,524	92
20,7	1,83	0,558	87
23,0	1,94	0,591	82
25,3	2,04	0,622	78
27,6	2,14	0,652	75
29,9	2,24	0,681	72
32,2	2,33	0,710	69
34,5	2,42	0,737	67
36,8	2,51	0,764	65
39,1	2,59	0,790	63
41,4	2,67	0,815	61
43,7	2,76	0,840	60
46,0	2,84	0,864	58