

Formable microwave cable

SUCOFORM_141_FEP Item: 22511944

Description

Sucoform: Formstable, hand-formable alternatives to semi-rigid microwave cables

RG402 dimension, 50 Ohm, 33 GHz, 165°C, ø4.1 mm, FEP jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Wire	0.94 mm
Dielectric	PTFE (Polytetrafluoroethylene)		2.95 mm
Outer conductor	Copper, Tin plated	Tin soaked braid, 100%	3.58 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 3027 - rd	4.1 mm +/- 0.1

Print: HUBER+SUHNER SUCOFORM 141 FEP 50 Ohm (PA no.)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	33 GHz
Capacitance	92 pF/m
Velocity of signal propagation	71 %
Signal delay	4.7 ns/m
Screening effectiveness	≥ 100 dB (up to 18 GHz)
Operating voltage	≤ 1.9 kV _{rms} (at sea level)
Test voltage	5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		4.7 kg/100 m
Min. bending radius	static	8 mm
	repeated (for ≤ 50 bendings)	40 mm

Environmental Data

Temperature range	-65 °C ... +165 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	IEC 60332-1, UL 1581 § 1080 (VW-1)
Halogen free	No
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed

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	Y12 3 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 = 0.355

b = 0.04

f_{max} = 33

P at 1GHz = 560

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 (W) sea level 40° C ambient temperature
1,65	0,52	0,159	436
3,3	0,78	0,237	308
4,95	0,99	0,301	252
6,6	1,18	0,358	218
8,25	1,35	0,411	195
9,9	1,51	0,461	178
11,55	1,67	0,509	165
13,2	1,82	0,554	154
14,85	1,96	0,598	145
16,5	2,1	0,641	138
18,15	2,24	0,682	131
19,8	2,37	0,723	126
21,45	2,5	0,763	121
23,1	2,63	0,802	117
24,75	2,76	0,840	113
26,4	2,88	0,878	109
28,05	3,0	0,915	106
29,7	3,12	0,952	103
31,35	3,24	0,988	100
33,0	3,36	1,024	97