

Formable microwave cable

SUCOFORM_250-01_FEP Item: 84007941

Description

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

RG401 dimension, 50 Ohm, 18 GHz, 165°C, ø6.8 mm, FEP jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	1.67 mm
Dielectric	PTFE (Polytetrafluoroethylene)		5.24 mm
Outer conductor	Copper, Tin plated	Tin soaked braid, 100%	6.3 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 3020 - rd	6.8 mm +/- 0.1

Print: HUBER+SUHNER SUCOFORM 250-01 FEP 50 Ohm (PA no.)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	18 GHz
Capacitance	95 pF/m
Velocity of signal propagation	71 %
Signal delay	4.7 ns/m
Screening effectiveness	≥ 100 dB (up to 18 GHz)
Operating voltage	≤ 3.5 kV _{rms} (at sea level)
Test voltage	7.5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight	13.8 kg/100 m
Min. bending radius	static repeated (for ≤ 15 bendings)
	30 mm 120 mm

Environmental Data

Temperature range	-65 °C ... +165 °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	Y14 5 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 = 0.21

b = 0.031

f_{max} = 18

P at 1GHz = 1000

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
0,9	0,23	0,069	1054
1,8	0,34	0,103	745
2,7	0,43	0,131	609
3,6	0,51	0,155	527
4,5	0,58	0,178	471
5,4	0,66	0,200	430
6,3	0,72	0,220	398
7,2	0,79	0,240	373
8,1	0,85	0,259	351
9,0	0,91	0,277	333
9,9	0,97	0,295	318
10,8	1,02	0,312	304
11,7	1,08	0,329	292
12,6	1,14	0,346	282
13,5	1,19	0,363	272
14,4	1,24	0,379	264
15,3	1,3	0,395	256
16,2	1,35	0,411	248
17,1	1,4	0,426	242
18,0	1,45	0,442	236

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