

Formable microwave cable

SUCOFORM_86_FEP Item: 22511942

Description

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

RG403 dimension, 50 Ohm, 40 GHz, 165°C, ø2.5 mm, FEP jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Wire	0.53 mm
Dielectric	PTFE (Polytetrafluoroethylene)		1.65 mm
Outer conductor	Copper, Tin plated	Tin soaked braid, 100%	2.1 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 3027 - rd	2.5 mm +/- 0.1

Print: HUBER+SUHNER SUCOFORM 86 FEP 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	40 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	≤ 1.5 kV _{rms} (at sea level)
Test voltage	3 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		1.8 kg/100 m
Min. bending radius	static	6 mm
	repeated (for ≤ 50 bendings)	20 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	Y16 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 = 0.6283

b = 0.04

f_{max} = 40

P at 1GHz = 280

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
2,0	0,97	0,295	198
4,0	1,42	0,432	140
6,0	1,78	0,542	114
8,0	2,1	0,639	99
10,0	2,39	0,727	89
12,0	2,66	0,810	81
14,0	2,91	0,887	75
16,0	3,15	0,961	70
18,0	3,39	1,032	66
20,0	3,61	1,100	63
22,0	3,83	1,166	60
24,0	4,04	1,231	57
26,0	4,24	1,293	55
28,0	4,44	1,355	53
30,0	4,64	1,415	51
32,0	4,83	1,473	49
34,0	5,02	1,531	48
36,0	5,21	1,588	47
38,0	5,39	1,644	45
40,0	5,57	1,699	44

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