

Flexible RF cable

RG_142_B/U Item: 22510037

Description

RG: RG type RF cables

RG142, 50 Ohm, 6 GHz, 200°C, ø4.95 mm, FEP jacket



Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Wire	0.95 mm
Dielectric	PTFE (Polytetrafluoroethylene)		2.95 mm
Outer conductor	Copper, Silver plated	Braid, 97%	3.6 mm
Outer conductor	Copper, Silver plated	Braid, 94 %	4.25 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	4.95 mm +/- 0.1

Print: HUBER+SUHNER RG 142 B/U 50 Ohm (production order number)

Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	95 pF/m
Velocity of signal propagation	69 %
Signal delay	4.75 ns/m
Screening effectiveness	≥ 85 dB (up to 6 GHz)
Operating voltage	≤ 2.5 kV _{rms} (at sea level)
Test voltage	5 kV _{rms} (50 Hz/1 min)

Mechanical Data

Weight		6.4 kg/100 m
Min. bending radius	static	30 mm
		50 mm

Environmental Data

Temperature range	-65 °C ... +200 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	IEC 60332-3,
Halogen free	No
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant

Additional Information

MIL reference: M17/60-RG142 (former reference: M17/158-00001)

Remarks

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

Suitable Connectors

Cable group	U9 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 = 0.3956

b = 0.0645

f_{max} = 6

P at 1GHz = 407

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
0,3	0,24	0,072	743
0,6	0,35	0,105	525
0,9	0,43	0,132	429
1,2	0,51	0,156	372
1,5	0,58	0,177	332
1,8	0,65	0,197	303
2,1	0,71	0,216	281
2,4	0,77	0,234	263
2,7	0,82	0,251	248
3,0	0,88	0,268	235
3,3	0,93	0,284	224
3,6	0,98	0,300	215
3,9	1,03	0,315	206
4,2	1,08	0,330	199
4,5	1,13	0,344	192
4,8	1,18	0,359	186
5,1	1,22	0,373	180
5,4	1,27	0,386	175
5,7	1,31	0,400	170
6,0	1,36	0,413	166