

Coaxial Cable RG_142_B/U

Description

PTFE - 50 Ohm - double screen



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 (PA no.)

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
Insulation resistance	$\geq 1 \times 10^8$ MQm
Min. screening effectiveness	≥ 85 dB (up to 6 GHz)
Max. 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 repeated (for ≤ 50 bendings)
	30 mm 50 mm

Environmental Data

Temperature range	-65 °C... +165 °C
Installation temperature	-20 °C... +60 °C
Flammability	IEC 60332-3,
2011/65/EU (RoHS)	compliant

Additional Information

Ordering Information

Order as	RG_142_B/U
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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 (watt) 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