

RG223, 50 Ohm, 6 GHz, 85°C, ø5.4 mm, PVC jacket

RG_223_/U

Properties

- Mil standard RG cables
- Excellent RF performance for precision applications
- Suitable for use in application up to 6 GHz



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire, 96%	0.88 mm - 0.1 mm
Dielectric	PE (Polyethylene)		2.95mm
Outer conductor	Copper, Silver plated	Braid, 96%	3.6mm
Outer conductor	Copper, Silver plated	Braid, 94%	4.2mm
Jacket	PVC II (low migration)	RAL 9005 - bk	5.4 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-1Ω
Operating frequency	≤ 6 GHz
Capacitance	101 pF
Velocity of signal propagation	66 %
Signal delay	5 ns/m
Screening effectiveness	85 dB at frequency 0.0001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	27.7 Ω/km
Operating Voltage (at sea level)	≤ 2.5 kV
Test voltage (50 Hz/1 min)	≤ 5 kV

Mechanical data	
Weight	approx. 55 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	54 mm

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Environmental data	
Operation temperature	-25 °C ... 85°C
Installation temperature	-20 °C ... 60°C
Fire characteristics	contains halogene

Additional Information

MIL reference: M17/194-00001 (former reference: M17/84-RG223)

Suitable connectors

Cable group	U9
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Ordering information

Item number	Item description	Available as assembly only
22510072	RG_223_/U	No

Power Matrix

Calculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

a coefficient typical =	0.3756	b coefficient typical =	0.0749
fmax =	6.0	P at 1 GHz =	120.0

Frequency GHz	Nom. attenuation (dB/m)	Nom. attenuation Max. (dB/ft)	CW power (W)
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.10	0.126	0.038	379
0.20	0.183	0.056	268
0.30	0.228	0.069	219
0.40	0.268	0.082	190
0.60	0.336	0.102	155
0.80	0.396	0.121	134
1.00	0.451	0.137	120
1.20	0.501	0.153	110
1.40	0.549	0.167	101
1.60	0.595	0.181	95
1.80	0.639	0.195	89
2.00	0.681	0.208	85
2.50	0.781	0.238	76
3.00	0.875	0.267	69
3.50	0.965	0.294	64
4.00	1.051	0.320	60
4.50	1.134	0.346	57
5.00	1.214	0.370	54
5.50	1.293	0.394	51
6.00	1.369	0.417	49

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