

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)		2.95 mm
Outer conductor	Copper, Silver plated	Braid, 96%	3.6 mm
Outer conductor	Copper, Silver plated	Braid, 94%	4.2 mm
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/m
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 kVrms
Test voltage (50 Hz/1 min)	≤ 5 kVrms

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	
Ordering information			
Item number		Item description	Available as assembly only
22510072		RG_223_/U	No
Power Matrix			
Calculation: typical Attenuation [formula: (a*f^0.5 + b*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 (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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