

RG217, 50 Ohm, 3 GHz, 85°C, ø13.85 mm, PVC jacket

RG_217_/U

Properties

- Mil standard RG cables
- Excellent RF performance for precision applications
- Suitable in applications up to 3 GHz



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper	Wire, 96%	2.69 mm - 0.25 mm
Dielectric	PE (Polyethylene)		9.33 mm
Outer conductor	Copper	Braid, 96%	10.3 mm
Outer conductor	Copper	Braid, 94%	11.2 mm
Jacket	PVC II (low migration)	RAL 9005 - bk	13.85 mm +/- 0.25 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 3 GHz
Capacitance	101 pF/m
Inductance	0.248 μH/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	80 dB at frequency 0.001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 6 kVrms
Test voltage (50 Hz/1 min)	≤ 12 kVrms

Mechanical data	
Weight	approx. 301 g/m
Static bending radius	≥ 70 mm
Repeated bending radius	140 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: M17/192-00001 (former reference: M17/78-RG217)

Suitable connectors	
Cable group	U38

Ordering information		
Item number	Item description	Available as assembly only
22510064	RG_217_/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 =	0.1469	b coefficient typical =	0.0549
fmax =	3.0	P at 1 GHz =	600.0
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	0.052	0.016	1897
0.20	0.077	0.023	1342
0.30	0.097	0.030	1095
0.40	0.115	0.035	949
0.60	0.147	0.045	775
0.80	0.175	0.053	671
1.00	0.202	0.062	600
1.20	0.227	0.069	548
1.40	0.251	0.077	507
1.60	0.274	0.084	474
1.80	0.296	0.090	447
2.00	0.318	0.097	424
2.50	0.370	0.113	379
3.00	0.419	0.128	346

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