

RG214, 50 Ohm, 6 GHz, 85°C, ø10.8 mm, PVC jacket

RG_214_/U

Properties

- Mil standard RG cable
- 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	Strand-07, 90.7%	2.25 mm - 0.15 mm
Dielectric	PE (Polyethylene)		7.28 mm
Outer conductor	Copper, Silver plated	Braid, 90.7%	8 mm
Outer conductor	Copper, Silver plated	Braid, 93.9%	8.7 mm
Jacket	PVC II (low migration)	RAL 9005 - bk	10.8 mm +/- 0.15 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	71 dB at frequency 0.001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	5.8 Ω/km
Operating Voltage (at sea level)	≤ 5 kVrms
Phase vs temperature	-40 ... 70°C
Phase vs bending	9 °/GHz
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 185 g/m
Static bending radius	≥ 55 mm
Repeated bending radius	108 mm (bendings, up to 50)

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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: M17/190-00001 (former reference: M17/75-RG214)

Suitable connectors	
Cable group	U32

Ordering information		
Item number	Item description	Available as assembly only
22510057	RG_214_/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 =	0.202	b coefficient typical =	0.063
fmax =	6.0	P at 1 GHz =	325.0
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	0.070	0.021	1028
0.20	0.103	0.031	727
0.30	0.130	0.040	593
0.40	0.153	0.047	514
0.60	0.194	0.059	420
0.80	0.231	0.070	363
1.00	0.265	0.081	325
1.20	0.297	0.091	297
1.40	0.327	0.100	275
1.60	0.356	0.109	257
1.80	0.384	0.117	242
2.00	0.412	0.126	230
2.50	0.477	0.145	206
3.00	0.539	0.164	188
3.50	0.598	0.182	174
4.00	0.656	0.200	162
4.50	0.712	0.217	153
5.00	0.767	0.234	145
5.50	0.820	0.250	139
6.00	0.873	0.266	133

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