

RG214, 50 Ohm, 6 GHz, 85°C, Ø10.8 mm, PVC jacket

RG_214_/U-60

Properties

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



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-07, 93%	2.25 mm - 0.15 mm
Dielectric	PE (Polyethylene)		7.28 mm
Outer conductor	Copper, Tin plated	Braid, 93%	8 mm
Outer conductor	Copper, Tin plated	Braid, 95%	8.7 mm
Jacket	PVC (Polyvinyl chloride)	RAL 9005 - bk	10.8 mm +/- 0.15 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	101 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 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
Voltage Rating UL	30 V
Phase vs temperature	-40 ... 70°C
Phase vs bending	9 °/GHz
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 189 g/m
Static bending radius	≥ 55 mm
Repeated bending radius	108 mm

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Environmental data	
Operation temperature	-25 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	UL (vertical flame test similar VW-1)
Fire characteristics	contains halogene

Additional Information

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

Suitable connectors

Cable group	U32
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Ordering information

Item number	Item description	Available as assembly only
22511566	RG_214_/U-60	No

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

a coefficient typical =	0.1884	b coefficient typical =	0.0646
fmax =	6.0	P at 1 GHz =	324.0

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	0.066	0.020	1025
0.20	0.097	0.030	724
0.30	0.123	0.037	592
0.40	0.145	0.044	512
0.60	0.185	0.056	418
0.80	0.220	0.067	362
1.00	0.253	0.077	324
1.20	0.284	0.087	296
1.40	0.313	0.095	274
1.60	0.342	0.104	256
1.80	0.369	0.112	241
2.00	0.396	0.121	229
2.50	0.459	0.140	205
3.00	0.520	0.158	187
3.50	0.579	0.176	173
4.00	0.635	0.194	162
4.50	0.690	0.210	153
5.00	0.744	0.227	145
5.50	0.797	0.243	138
6.00	0.849	0.259	132

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