

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

RG_214_HIFLEX

Properties

- Highly flexible version of RG_214
- 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-19, 93%	2.25 mm - 0.15 mm
Dielectric	TPO (Olefine TPE)		7.3 mm
Outer conductor	Copper, Silver plated	Braid, 93%	8 mm
Outer conductor	Copper, Silver plated	Braid, 95%	8.7 mm
Jacket	PVC II (low migration)	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	70 dB at frequency 0.001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 5 kVrms
Phase vs temperature	16200 ppm at temperature -40 ... 80°C
Phase vs bending	5 °/GHz
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 185 g/m
Static bending radius	≥ 15 mm
Repeated bending radius	60 mm
Dynamic bending radius	< 100 mm

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Environmental data	
Operation temperature	-25 °C ... 85 °C
Installation temperature	-20 °C ... 60°C
Flame propagation standard	IEC 60332-1
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
22512156	RG_214_HIFLEX	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 =	0.285	b coefficient typical =	0.0679
fmax =	6.0	P at 1 GHz =	320.0

Frequency GHz	Nom. attenuation (dB/m) sea level 25°C ambient temperature	Nom. attenuation (dB/ft) sea level 25°C ambient temperature	CW power (W) sea level 40°C ambient temperature
0.10	0.097	0.030	1012
0.20	0.141	0.043	716
0.30	0.176	0.054	584
0.40	0.207	0.063	506
0.60	0.262	0.080	413
0.80	0.309	0.094	358
1.00	0.353	0.108	320
1.20	0.394	0.120	292
1.40	0.432	0.132	270
1.60	0.469	0.143	253
1.80	0.505	0.154	239
2.00	0.539	0.164	226
2.50	0.620	0.189	202
3.00	0.697	0.212	185
3.50	0.771	0.235	171
4.00	0.842	0.257	160
4.50	0.910	0.277	151
5.00	0.977	0.298	143
5.50	1.042	0.318	136
6.00	1.106	0.337	131

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