

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

Enviroflex_B214

Properties

- Halogen free alternative to RG_214
- Suitable for use in applications up to 6 GHz
- Low smoke
- Ozone, UV and weathering resistance



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper	Strand-07	2.25 mm
Dielectric	PE (Polyethylene)		7.25 mm
Outer conductor	Copper, Tin plated	Braid, 91%	7.9 mm
Outer conductor	Copper, Tin plated	Braid, 88%	8.6 mm
Jacket	LSFH (modified polyethylene)	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 ns/m
Screening effectiveness	50 dB at frequency 1 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	5.8 Ω/km
Operating Voltage (at sea level)	≤ 5 kVrms
Test voltage (50 Hz/1 min)	≤ 10 kVrms

Mechanical data	
Weight	approx. 183 g/m
Static bending radius	≥ 57 mm
Dynamic bending radius	< 114 mm

Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1

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Environmental data	
Fire characteristics	free of halogenes
Cold bend test	MIL-C-17 § 4.8.19

Suitable connectors	
Cable group	U32

Ordering information		
Item number	Item description	Available as assembly only
85087101	ENVIROFLEX_B214	No

Power Matrix			
Calculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]			
a coefficient typical =	0.202	b coefficient typical =	0.063
fmax =	6	P at 1 GHz =	325
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	0.039	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	0.090	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	0.125	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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