

RG223 LSFH type, 50 Ohm, 6 GHz, 85°C, ø5.4 mm, LSFH jacket

Enviroflex_B223

Properties

- Halogen free alternative to RG_223
- Suitable for use in applications up to 6 GHz
- Low smoke
- Ozone, UV and weathering resistance



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	0.88 mm
Dielectric	PE (Polyethylene)		2.95 mm
Outer conductor	Copper, Tin plated	Braid, 96%	3.5 mm
Outer conductor	Copper, Tin plated	Braid, 94%	4.1 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	5.4 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	102.5 pF/m
Velocity of signal propagation	66 %
Signal delay	5 ns/m
Screening effectiveness	60 dB at frequency 1 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	29 Ω/km
Outer conductor resistance	8 Ω/km
Operating Voltage (at sea level)	≤ 2.5 kVrms
Test voltage (50 Hz/1 min)	≤ 5 kVrms

Mechanical data	
Weight	approx. 56 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	54 mm
Dynamic bending radius	≥ 60 mm

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1
Fire characteristics	free of halogenes
Cold bend test	MIL-C-17 § 4.8.19

Suitable connectors	
Cable group	U9

Ordering information		
Item number	Item description	Available as assembly only
85087022	ENVIROFLEX_B223	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 =	0.3204	b coefficient typical =	0.1374
fmax =	6	P at 1 GHz =	120
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	0.115	0.035	379
0.20	0.171	0.052	268
0.30	0.217	0.066	219
0.40	0.258	0.079	190
0.60	0.331	0.101	155
0.80	0.396	0.121	134
1.00	0.458	0.140	120
1.20	0.516	0.157	110
1.40	0.571	0.174	101
1.60	0.625	0.191	95
1.80	0.677	0.206	89
2.00	0.728	0.222	85
2.50	0.850	0.259	76
3.00	0.967	0.295	69
3.50	1.080	0.329	64
4.00	1.190	0.363	60
4.50	1.298	0.396	57
5.00	1.403	0.428	54
5.50	1.507	0.459	51
6.00	1.609	0.490	49

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