

RG142 alternative, 50 Ohm, 6GHz, 200°C, ø4.95 mm, FEP jacket

K_03252_D-03

Properties

- Custom alternative to RG_142
- Suitable for use in applications up to 6 GHz
- Extended temperature range
- double shielded for better RF screening effectiveness
- FEP jacket



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	0.95 mm
Dielectric	FEP (Fluorinated ethylene propylene)		2.95 mm
Outer conductor	Copper, Silver plated	Braid, 96%	3.6 mm
Outer conductor	Copper, Silver plated	Braid, 94%	4.2 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 7032 - gr	4.95 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 1Ω
Operating frequency	≤ 6 GHz
Capacitance	94 pF/m
Velocity of signal propagation	69 %
Signal delay	4.75 ns/m
Screening effectiveness	82 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 1.7 kVrms
Test voltage (50 Hz/1 min)	≤ 3.4 kVrms

Mechanical data	
Weight	approx. 64 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	50 mm

Environmental data	
Operation temperature	-65 °C ... 200 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-3

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Environmental data	
Fire characteristics	contains halogene

Suitable connectors	
Cable group	U9

Ordering information		
Item number	Item description	Available as assembly only
22511236	K_03252_D-03	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 =	0.375	b coefficient typical =	0.0713
fmax =	6	P at 1 GHz =	490
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
0.20	0.182	0.055	1096
0.40	0.266	0.081	775
0.60	0.333	0.102	633
0.80	0.392	0.120	548
1.00	0.446	0.136	490
1.20	0.496	0.151	447
1.40	0.544	0.166	414
1.60	0.588	0.179	387
1.80	0.631	0.192	365
2.00	0.673	0.205	346
4.00	1.035	0.316	245
6.00	1.346	0.410	200

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