

RG223 alternative, 50 Ohm, 6 GHz, 85°C, ø5.4 mm, PUR jacket

G_03212_D-01

Properties

- Custom version of RG_223
- Suitable for use in applications up to 6 GHz
- Highly flexible



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Tin plated	Strand-19, 96 %, RAL 9005 - bk	0.9 mm - 0.1 mm
Dielectric	PE (Polyethylene)		2.95 mm
Outer conductor	Copper, Tin plated	Braid, 96%	3.6 mm
Outer conductor	Copper, Tin plated	Braid, 94%	4.2 mm
Jacket	PUR (Polyurethane)		5.4 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	100.7 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	80 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	38.6 Ω/km
Operating Voltage (at sea level)	≤ 2.5 kVrms
Test voltage (50 Hz/1 min)	≤ 5 kVrms

Mechanical data	
Weight	approx. 53 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	55 mm

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Fire characteristics	free of halogenes, acc. standard IEC 60754

Suitable connectors	
Cable group	U9

Ordering information		
Item number	Item description	Available as assembly only
22512305	G_03212_D-01	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 =	0.3336	b coefficient typical =	0.2018
fmax =	6	P at 1 GHz =	110
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	0.126	0.038	348
0.20	0.190	0.058	246
0.30	0.243	0.074	201
0.40	0.292	0.089	174
0.60	0.379	0.116	142
0.80	0.460	0.140	123
1.00	0.535	0.163	110
1.20	0.608	0.185	100
1.40	0.677	0.206	93
1.60	0.745	0.227	87
1.80	0.811	0.247	82
2.00	0.875	0.267	78
2.50	1.032	0.315	70
3.00	1.183	0.361	64
3.50	1.330	0.406	59
4.00	1.474	0.449	55
4.50	1.616	0.492	52
5.00	1.755	0.535	49
5.50	1.892	0.577	47
6.00	2.028	0.618	45

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