

RG174D alternative, 50 Ohm, 6 GHz, 85°C, ø3.1 mm, PUR jacket

G_02212_D-02

Properties

- Custom version of RG_174
- Suitable for use in applications up to 6 GHz



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-07, RAL 2001 - or	0.48 mm - 0.1 mm
Dielectric	PE (Polyethylene)		1.5 mm
Outer conductor	Copper, Silver plated	Braid, 95%	2 mm
Outer conductor	Steel, Copper + Silver plated	Braid, 93%	2.5 mm
Jacket	PUR (Polyurethane)	RAL 2001 - or	3.1 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 6 GHz
Capacitance	100 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	80 dB at frequency 0.001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 1.5 kVrms
Test voltage (50 Hz/1 min)	≤ 3 kVrms
Noise level	20 mV

Mechanical data	
Weight	approx. 18 g/m
Static bending radius	≥ 15 mm
Repeated bending radius	30 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	U4

Ordering information		
Item number	Item description	Available as assembly only
22511668	G_02212_D-02	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 =	0.95	b coefficient typical =	0.125
fmax =	6.0	P at 1 GHz =	37.0
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	0.313	0.095	117
0.20	0.450	0.137	83
0.30	0.558	0.170	68
0.40	0.651	0.198	59
0.60	0.811	0.247	48
0.80	0.950	0.290	41
1.00	1.075	0.328	37
1.20	1.191	0.363	34
1.40	1.299	0.396	31
1.60	1.402	0.427	29
1.80	1.500	0.457	28
2.00	1.594	0.486	26
2.50	1.815	0.553	23
3.00	2.020	0.616	21
3.50	2.215	0.675	20
4.00	2.400	0.732	18
4.50	2.578	0.786	17
5.00	2.749	0.838	17
5.50	2.915	0.888	16
6.00	3.077	0.938	15

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