DATA SHEET

RG316D alternative, 50 Ohm, 6 GHz, 200°C, ø3 mm, FEP jacket

K_02252_D-08

Properties

- Custom alternative to RG_316
- 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	Strand-07	0.54 mm
Dielectric	FEP (Fluorinated ethylene propylene)		1.54 mm
Outer conductor	Copper, Silver plated	Braid, 96%	2 mm
Outer conductor	Copper, Silver plated	Braid, 91%	2.5 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	3 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	97 pF/m
Velocity of signal propagation	69 %
Signal delay	4.83 ns/m
Screening effectiveness	82 dB at frequency 0.001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 1.8 kVrms
Test voltage (50 Hz/1 min)	≤ 3.8 kVrms

Mechanical data	
Weight	approx. 24 g/m
Static bending radius	≥ 18 mm
Repeated bending radius	30 mm
Dynamic bending radius	< 45 mm

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

Additional Information
Elimination candidate Alternative type: K_02252_D or K_02252_D-60

Suitable connectors	
Cable group	U4

Ordering information		
Item number	Item description	Available as assembly only
22511127	K_02252_D-08	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 =	**0.7905**	b coefficient typical =	**0.1703**
fmax =	**6.0**	P at 1 GHz =	**154.0**
Frequency	**Nom. attenuation**	**Nom. attenuation**	**CW power**
GHz	**(dB/m)**	**(dB/ft)**	**(W)**
	sea level 25°C ambient temperature	sea level 25°C ambient temperature	sea level 40°C ambient temperature
0.20	0.388	0.118	344
0.40	0.568	0.173	243
0.60	0.714	0.218	199
0.80	0.843	0.257	172
1.00	0.961	0.293	154
1.20	1.070	0.326	141
1.40	1.174	0.358	130
1.60	1.272	0.388	122
1.80	1.367	0.417	115
2.00	1.459	0.445	109
4.00	2.262	0.689	77
6.00	2.958	0.902	63

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