DATA SHEET

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

K_02252_D-60

Properties

- Custom alternative to RG_316
- Suitable for use in applications up to 6 GHz
- Extended temperature range
- 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	55 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 1.45 kVrms
Voltage Rating UL	30 V
Test voltage (50 Hz/1 min)	≤ 2.9 kVrms

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

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

K_02252_D-60

Environmental data	
Operation temperature	-65 °C ... 200 °C
Installation temperature	-20 °C ... 60°C
Flame propagation standard	IEC 60332-3
	UL (horizontal flame test)
Fire characteristics	contains halogene

Suitable connectors	
Cable group	U4

Ordering information		
Item number	Item description	Available as assembly only
22511904	K_02252_D-60	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 =	**0.7984**	b coefficient typical =	**0.2088**
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	0.399	0.122	344
0.40	0.588	0.179	243
0.60	0.744	0.227	199
0.80	0.881	0.269	172
1.00	1.007	0.307	154
1.20	1.125	0.343	141
1.40	1.237	0.377	130
1.60	1.344	0.410	122
1.80	1.447	0.441	115
2.00	1.547	0.472	109
4.00	2.432	0.741	77
6.00	3.208	0.978	63

DOCUMENT PIM-P1036 / Date of publication: 26.02.2024 / uncontrolled copy