

50 Ohm, 3 GHz, 205°C, Ø1 mm, PFA jacket

K_01152-16

Properties

- Flexible RF cable with PFA Dielectric
- PFA jacket
- Suitable for use in applications up to 3 GHz
- Extended temperature range



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Wire	0.18 mm
Dielectric	PFA (Perfluoroalkoxy)		0.48 mm
Outer conductor	Copper, Silver plated	Braid, 96.8%	0.84 mm
Jacket	PFA (Perfluoroalkoxy)	Nature	1 mm +/- 0.05 mm

Electrical data	
Impedance	50 Ω +/- 5Ω
Operating frequency	≤ 3 GHz
Capacitance	96.6 pF/m
Velocity of signal propagation	69 %
Signal delay	4.83 ns/m
Screening effectiveness	40 dB at frequency 0.001 GHz ... 3GHz
Insulation resistance	100000000 MΩ*m
Operating Voltage (at sea level)	≤ 0.25 kVrms
Test voltage (50 Hz/1 min)	≤ 1 kVrms

Mechanical data	
Weight	approx. 3.3 g/m
Static bending radius	≥ 12 mm
Repeated bending radius	20 mm

Environmental data	
Operation temperature	-55 °C ... 205 °C
Installation temperature	-20 °C ... 60°C
Fire characteristics	contains halogene

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Suitable connectors	
Cable group	U99

Ordering information		
Item number	Item description	Available as assembly only
85004838	K_01152-16	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 =	1.984	b coefficient typical =	0.066
fmax =	3.0	P at 1 GHz =	15.0
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
0.20	0.900	0.274	34
0.40	1.281	0.390	24
0.60	1.576	0.480	19
0.80	1.827	0.557	17
1.00	2.050	0.625	15
1.20	2.253	0.687	14
1.40	2.440	0.744	13
1.60	2.615	0.797	12
1.80	2.781	0.848	11
2.00	2.938	0.896	11
3.00	3.634	1.108	9

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DOCUMENT PIM-P1040 / Date of publication: 26.02.2024 / uncontrolled copy