

RG179, 75 Ohm, 3 GHz, 200°C, Ø2.54 mm, FEP jacket

RG_179_B/U

Properties

- Mil standard RG cable
- Excellent RF performance for precision applications
- Suitable for use in applications up to 3 GHz
- Extended temperature range
- 75 Ohm characteristic Impedance



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.31 mm
Dielectric	PTFE (Polytetrafluoroethylene)		1.55 mm
Outer conductor	Copper, Silver plated	Braid, 94%	2 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8015 - br	2.54 mm +/- 0.13 mm

Electrical data	
Impedance	75 Ω +/- 3 Ω
Operating frequency	$\leq$ 3 GHz
Capacitance	63 pF/m
Velocity of signal propagation	69 %
Signal delay	4.83 ns/m
Screening effectiveness	41 dB at frequency 0.001 GHz ... 1GHz
Insulation resistance	100000000 M Ω *m
Inner conductor resistance	742 Ω /km
Operating Voltage (at sea level)	$\leq$ 0.75 kVrms
Test voltage (50 Hz/1 min)	$\leq$ 1.5 kVrms

Mechanical data	
Weight	approx. 14.8 g/m
Static bending radius	$\geq$ 15 mm
Repeated bending radius	25 mm
Dynamic bending radius	< 38 mm

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Environmental data	
Operation temperature	-65 °C ... 200 °C
Installation temperature	-20 °C ... 60°C
Flame propagation standard	IEC 60332-1
Fire characteristics	contains halogene

Additional Information

MIL reference: M17/94-RG179

Suitable connectors

Cable group U5

Ordering information

Item number	Item description	Available as assembly only
22510044	RG_179_B/U	No

Power MatrixCalculation: typical Attenuation [formula: $(a \cdot f^{0.5} + b \cdot f)$] and maximum Power CW [formula: $(p/f^{0.5})$]

a coefficient typical =	0.73	b coefficient typical =	0.1014
fmax =	3.0	P at 1 GHz =	115.0
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	0.347	0.106	257
0.40	0.502	0.153	182
0.60	0.626	0.191	148
0.80	0.734	0.224	129
1.00	0.831	0.253	115
1.20	0.921	0.281	105
1.40	1.006	0.307	97
1.60	1.086	0.331	91
1.80	1.162	0.354	86
2.00	1.235	0.376	81
3.00	1.569	0.478	66

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DOCUMENT PIM-P973 / Date of publication: 26.02.2024 / uncontrolled copy