

RG174, 50 Ohm, 1 GHz, 85 °C, ø2.8 mm, PVC jacket

RG_174_A/U-60

Properties

- Mil standard RG cable
- Excellent RF performance for precision applications
- Suitable for use in application up to 1 GHz
- UL qualified



Construction

Component	Material	Detail	Diameter
Centre conductor	Steel, Copper plated	Strand-07, 87%	0.48 mm - 0.1 mm
Dielectric	PE (Polyethylene)		1.48 mm
Outer conductor	Copper, Tin plated	Braid, 87%	2 mm
Jacket	PVC (Polyvinyl chloride)	RAL 9005 - bk	2.8 mm +/- 0.1 mm

Electrical data

Impedance	50 Ω +/-2Ω
Operating frequency	≤ 1 GHz
Capacitance	101 pF/m
Velocity of signal propagation	66 %
Signal delay	5.03 ns/m
Screening effectiveness	40 dB at frequency 0.0001 GHz ... 1GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	317.3 Ω/km
Operating Voltage (at sea level)	≤ 1.5 kVrms
Voltage Rating UL	30 V
Test voltage (50 Hz/1 min)	≤ 3 kVrms

Mechanical data

Weight	approx. 13 g/m
Static bending radius	≥ 15 mm
Repeated bending radius	28 mm

Environmental data

Operation temperature	-25 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	UL (horizontal flame test)

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Environmental data

Fire characteristics	contains halogene
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Additional Information

MIL reference: M17/196-00001 (former reference: M17/119-RG174)

Suitable connectors

Cable group	U2
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Ordering information

Item number	Item description	Available as assembly only
22511810	RG_174_A/U-60	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 =	0.888	b coefficient typical =	0.034
fmax =	1.0	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	0.284	0.087	117
0.20	0.404	0.123	83
0.30	0.497	0.151	68
0.40	0.575	0.175	59
0.60	0.708	0.216	48
0.80	0.821	0.250	41
1.00	0.922	0.281	37

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