

RG400, 50 Ohm, 6 GHz, 200°C, Ø4.95 mm, FEP jacket

RG_400_/U

Properties

- According to RG cable standard
- Excellent RF performance for precision applications
- Suitable for use in applications up to 6 GHz
- Extended temperature range



Construction			
Component	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-19	1 mm
Dielectric	PTFE (Polytetrafluoroethylene)		2.95 mm
Outer conductor	Copper, Silver plated	Braid, 97%	3.6 mm
Outer conductor	Copper, Silver plated	Braid, 94%	4.2 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 8016 - br	4.95 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/-2Ω
Operating frequency	≤ 6 GHz
Capacitance	94 pF/m
Velocity of signal propagation	69 %
Signal delay	4.75 ns/m
Screening effectiveness	81 dB at frequency 0.001 GHz ... 6GHz
Insulation resistance	100000000 MΩ*m
Inner conductor resistance	28.31 Ω/km
Outer conductor resistance	7.2 Ω/km
Operating Voltage (at sea level)	≤ 1.7 kVrms
Test voltage (50 Hz/1 min)	≤ 3.4 kVrms

Mechanical data	
Weight	approx. 64 g/m
Static bending radius	≥ 30 mm
Repeated bending radius	50 mm
Dynamic bending radius	< 75 mm

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Environmental data	
Operation temperature	-65 °C ... 200 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-3-24
Fire characteristics	IEC 60332-1-2
	contains halogene

Material compliance			
Item number	Directive / Regulation	Rating	Exemptions / Details
22510080	RoHS 2011/65/EU and (EU) 2015/863	Compliant without exemption	
	REACH 1907/2006 Article 33 SVHC	Free of SVHC >0,1%	

Additional Information
MIL reference: M17/128-RG400

Suitable connectors
Cable group
U11

Ordering information		
Item number	Item description	Available as assembly only
22510080	RG_400_/U	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 =	0.3894	b coefficient typical =	0.0925
fmax =	6	P at 1 GHz =	365
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	0.193	0.059	816
0.40	0.283	0.086	577
0.60	0.357	0.109	471
0.80	0.422	0.129	408
1.00	0.482	0.147	365
1.20	0.538	0.164	333
1.40	0.590	0.180	308
1.60	0.641	0.195	289
1.80	0.689	0.210	272
2.00	0.736	0.224	258
4.00	1.149	0.350	182
6.00	1.509	0.460	149

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