

RG178 LSFH type, 50 Ohm, 3 GHz, 85°C, ø1.84 mm, LSFH jacket

Enviroflex_B178

Properties

- Halogen free alternative to RG cables
- Low smoke
- Ozone, UV and weathering resistance



Construction			
Component	Material	Detail	Diameter
Centre conductor	Steel, Copper + Silver plated	Strand-07	0.305 mm
Dielectric	SPE (Foamed Polyethylene)		0.8 mm
Outer conductor	Copper, Tin plated	Braid	1.3 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	1.84 mm +/- 0.1 mm

Electrical data	
Impedance	50 Ω +/- 2Ω
Operating frequency	≤ 3 GHz
Capacitance	94.5 pF/m
Velocity of signal propagation	71 %
Signal delay	4.7 ns/m
Screening effectiveness	30 dB at frequency 1 GHz ... 3GHz
Insulation resistance	10000000 MΩ*m
Inner conductor resistance	840 Ω/km
Operating Voltage (at sea level)	≤ 0.9 kVrms
Test voltage (50 Hz/1 min)	≤ 2 kVrms

Mechanical data	
Weight	approx. 6.5 g/m
Static bending radius	≥ 5 mm
Repeated bending radius	20 mm
Dynamic bending radius	< 30 mm

Environmental data	
Operation temperature	-40 °C ... 85 °C
Installation temperature	-20 °C ... 60 °C
Flame propagation standard	IEC 60332-1

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Environmental data	
Fire characteristics	free of halogenes
Cold bend test	MIL-C-17 § 4.8.19

Suitable connectors	
Cable group	U1

Ordering information		
Item number	Item description	Available as assembly only
85087102	ENVIROFLEX_B178	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 =	1.5474	b coefficient typical =	0.2452
fmax =	3	P at 1 GHz =	40
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	0.514	0.157	126
0.20	0.741	0.226	89
0.40	1.077	0.328	63
0.60	1.346	0.410	52
1.00	1.793	0.546	40
1.50	2.263	0.690	33
2.00	2.679	0.816	28
3.00	3.416	1.041	23

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