

RG178 Coaxial Cable

P/N: AT1RG178-1B



RG178 is a ultra-miniature, **50-ohm** coaxial cable engineered for high-frequency signal transmission in extremely space-constrained applications. It features a stranded silver-plated copper-clad steel inner conductor and a silver-plated copper braid, providing excellent conductivity and superior shielding effectiveness for its size. Its high-grade **PTFE** dielectric and durable

FEP jacket ensure exceptional resistance to chemicals, moisture, and extreme temperatures ranging from **-55°C to +200°C**. Highly flexible and lightweight, RG178 is the industry standard for internal wiring in cellular phones, wireless communication modules, medical probes, and aerospace instrumentation where minimal footprint and high-temperature stability are paramount.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	silver plated copper clad steel	7/0.10
Dielectric	PTFE	0.84
Outer Conductor	Silver plated copper Braid	1.33 (95%)
Jacket	FEP	1.80

Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC-3	GHz
Impedance	50±2	Ω
Propagation Velocity	70	%
Capacitance	95.5	pF/m
Screening Effectiveness	40	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	800	Ω/km
Outer Conductor Resistance	45	Ω/km
Operating Voltage (at sea level)	≤ 0.9	kVrms
Peak Power Rating	1.0	KW



Technical Data Sheet

Mechanical Specifications

Parameter	Value	Unit
Weight	8.5	Kg/km
Single Bending Radius	≥ 10	mm
Repeated Bending Radius	≥ 25	mm

Environmental Specifications

Parameter	Value	Unit
Operation Temperature	-55 ~ 200	°C
Installation Temperature	-20 ~ 60	°C

Attenuation

Frequency (GHz)	dB/100m
0.05	34.5
0.1	46.0
0.4	92.0
1.0	151.2
3.0	262.0