

### RG217 Coaxial Cable

P/N: AT1RG217-1S



RG217 is a rugged, **50-ohm** high-power coaxial cable designed for low-loss transmission and durability in challenging environments. It features a large **solid bare copper** inner conductor and a **double bare copper braid**, offering excellent electrical stability and high screening efficiency. Protected by a thick, non-contaminating **PVC jacket**, it is specifically engineered to handle higher power levels and withstand mechanical stress better than standard cables. Its robust construction makes it ideal for **high-power RF transmitters**, laboratory grade test equipment, and underground or industrial signal distribution where low attenuation and high voltage handling are essential.

#### Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	Bare copper	2.69
Dielectric	Solid PE	9.35
1 <sup>st</sup> Outer Conductor	copper Braid	10.3 (96%)
2 <sup>nd</sup> Outer Conductor	copper Braid	11.2 (94%)
Jacket	PVC	13.84

#### Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC-4	GHz
Impedance	50±2	Ω
Propagation Velocity	66	%
Capacitance	101	pF/m
Screening Effectiveness	60	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	1.7	Ω/km
Outer Conductor Resistance	1.9	Ω/km
Operating Voltage (at sea level)	≤ 7.0	kVrms
Peak Power Rating	40	KW



## Technical Data Sheet

### Mechanical Specifications

Parameter	Value	Unit
Weight	300	Kg/km
Single Bending Radius	≥ 55	mm
Repeated Bending Radius	≥ 100	mm

### Environmental Specifications

Parameter	Value	Unit
Operation Temperature	-25 ~ 85	°C
Installation Temperature	-10 ~ 60	°C

### Attenuation

Frequency (GHz)	dB/100m
0.05	3.1
0.1	5.0
0.2	7.9
0.4	12.0
1.0	19.6
1.5	26.5
2.0	32.1
3.0	42.2