

RG58 AI Coaxial Cable

P/N: AT1RG58-1S



RG58 AI cable is an enhanced, **50-ohm** coaxial cable that incorporates an **aluminum foil** shield in addition to a standard tinned copper braid. This "double-shield" design ensures 100% shielding coverage, significantly reducing signal leakage and protecting against high-frequency electromagnetic interference (EMI). Its stranded inner conductor provides the flexibility needed for easy routing, while the durable **PVC jacket** ensures long-term protection. Because of its superior screening effectiveness, RG58 AI cable is frequently used in **wireless communication systems, Wi-Fi antenna extensions, and RF environments** where high-density interference is a concern.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	Copper clad Aluminium	0.8
Dielectric	Solid PE	2.95
1 st Outer Conductor	Al/PET Tape	
2 nd Outer Conductor	Tinned copper Braid	112*0.12 (90%)
Jacket	PVC	4.95

Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC-1	GHz
Impedance	50±3	Ω
Propagation Velocity	66	%
Capacitance	100	pF/m
Screening Effectiveness	80	dB
Insulation Resistance	2000	MΩ-Km
Inner Conductor Resistance	36	Ω/km
Outer Conductor Resistance	20	Ω/km
Operating Voltage (at sea level)	≤ 1.9	kVrms
Peak Power Rating	2.0	KW



Technical Data Sheet

Mechanical Specifications

Parameter	Value	Unit
Weight	40	Kg/km
Single Bending Radius	≥ 25	mm
Repeated Bending Radius	≥ 50	mm

Environmental Specifications

Parameter	Value	Unit
Operation Temperature	-25 ~ 70	°C
Installation Temperature	-10 ~ 50	°C

Attenuation

Frequency (GHz)	dB/100m
0.05	5.7
0.1	12.2
0.4	20.0
0.7	38.5
1.0	46.0