

RG316 DS Coaxial Cable

P/N: AT1RG316-2B



Double Shielded (DS) RG316 is a **50-ohm** miniature coaxial cable enhanced for superior EMI protection. It features a stranded silver-plated copper conductor and **PTFE** dielectric, distinguished by a **double silver-plated copper braid** that significantly improves screening effectiveness. Encased in a high-temperature **FEP** jacket, it maintains exceptional flexibility and chemical resistance across **-55°C to +200°C**. Its compact profile and enhanced isolation make it ideal for military avionics, high-frequency test leads, and wireless infrastructure where space is limited and interference immunity is paramount.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	silver plated copper clad steel	0.51
Dielectric	PTFE	1.52
1 st Outer Conductor	Silver plated copper wire Braid	
2 nd Outer Conductor	Silver plated copper wire Braid	2.39
Jacket	FEP	2.90

Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC-6	GHz
Impedance	50	Ω
Propagation Velocity	69.5	%
Capacitance	100	pF/m
Screening Effectiveness	60	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	280	Ω/km
Outer Conductor Resistance	12	Ω/km
Operating Voltage (at sea level)	≤ 1.2	kVrms
Peak Power Rating	2.0	KW



Technical Data Sheet

Mechanical Specifications

Parameter	Value	Unit
Weight	20	Kg/km
Single Bending Radius	≥ 29	mm
Repeated Bending Radius	≥ 55	mm

Environmental Specifications

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

Attenuation

Frequency (GHz)	dB/100m
0.1	43.0
0.4	77.8
1.0	125.4
1.5	155.5
2.0	175.6
3.0	209.6