

0.81 Micro Coaxial Cable

P/N: AT1MC081-1G



The 0.81 mm cable is a **50-ohm ultra-micro coaxial cable** utilized in the most densely packed electronic assemblies. It is the standard choice for **smartphones, wearables (smartwatches), and ultra-thin tablets** where every fraction of a millimeter counts. Primarily terminated with **IPEX MHF4** connectors—the smallest in the industry—it provides the critical link

between the mainboard and the **Wi-Fi/LTE** antennas. Despite its fragile appearance, its **PFA jacket** provides good thermal resistance, allowing it to function reliably alongside the compact, heat-generating processors found in modern mobile hardware.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	Silver plated Copper	7*0.05/0.15
Dielectric	FEP	0.41±0.03
Outer Conductor	Tinned Copper Braid	16*3/0.05(90%)
Jacket	PFA	0.81±0.04

Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC-6	GHz
Impedance	50±3	Ω
Propagation Velocity	70	%
Capacitance	100	pF/m
Screening Effectiveness	30	dB
Insulation Resistance	500	MΩ-Km
Inner Conductor Resistance	900	Ω/km
Outer Conductor Resistance	140	Ω/km
Operating Voltage (at sea level)	≤ 30	V AC
Peak Power Rating	0.1	KW



Technical Data Sheet

Mechanical Specifications

Parameter	Value	Unit
Weight	1.2	Kg/km
Single Bending Radius	≥ 2	mm
Repeated Bending Radius	≥ 4	mm

Environmental Specifications

Parameter	Value	Unit
Operation Temperature	-40 ~ 80	°C
Installation Temperature	-20 ~ 60	°C

Attenuation

Frequency (GHz)	dB/m
1.0	3.1
2.0	4.7
3.0	5.8
4.0	6.9
5.0	7.8
6.0	8.5