Technical
Data Sheet

HLF 100 Coaxial Cable

P/N: AT1ATR100-1S

The **HLF100 cable** is a high-performance, **ultra-flexible 50-ohm coaxial cable** designed as a superior alternative to traditional RG174/316 for short-range RF connectivity. Engineered with a stranded center conductor and a double-shielded outer layer (typically aluminum tape and tinned copper braid), it provides significantly **lower loss** and **better EMI protection** in a compact form factor. Its lightweight design and **extreme flexibility** make it the primary choice for **internal equipment wiring, jumper assemblies, and GPS/Wi-Fi antenna links** where space is at an absolute premium. The **durable, weather-resistant jacket** ensures reliable performance for both indoor and outdoor low-power applications where maintaining signal integrity in tight bends is critical.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	Copper Clad Steel	0.45
Dielectric	Solid Polyethylene	1.54
1st Outer Conductor	Unsealed APA Tape	1.65
2nd Outer Conductor	Tinned Copper Braid	2.05 (93%)
Jacket	Black PE	2.79

Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC - 4	GHz
Impedance	50	Ω
Propagation Velocity	66	%
Capacitance	102	pF/m
Screening Effectiveness	≥80	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	268	Ω/km
Outer Conductor Resistance	29	Ω/km
Voltage Withstanding	500	V DC
Peak Power Rating	0.5	KW

Ground floor, Plot No -20, (KH No-160/1,street No-3/2, samta Vihar, Mukandpur Extn., North West Delhi, Delhi-110042
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Mechanical Specifications		
Parameter	**Value**	**Unit**
Weight	12	Kg/km
Single Bending Radius	≥ 6	mm
Repeated Bending Radius	≥ 20	mm

Environmental Specifications		
Parameter	**Value**	**Unit**
Operation Temperature	-35 ~ 75	°C
Installation Temperature	-20 ~ 60	°C

Attenuation and Power Rating vs Frequency			
Frequency	**dB/100 ft**	**dB/100 m**	**Avg. Power Rating (kW)**
50 MHz	5.71	18.73	0.180
150 MHz	8.96	29.40	0.100
220 MHz	10.91	35.80	0.083
450 MHz	15.82	51.90	0.057
900 MHz	24.24	79.53	0.039
1500 MHz	30.08	98.70	0.029
1800 MHz	35.27	115.72	0.027
2000 MHz	37.50	123.03	0.025
2500 MHz	41.93	137.57	0.022

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