Technical
Data Sheet

HLF 300 Coaxial Cable

P/N: AT1ATR300-1S

The **HLF300 cable** is a high-performance, **50-ohm low-loss coaxial cable** that bridges the gap between smaller diameter cables and **heavy-duty** feeders. It features a solid copper-clad aluminum center conductor and a robust double-shielding architecture—utilizing 100% coverage aluminum foil tape bonded to the dielectric, reinforced by a dense tinned copper braid. This design ensures **superior EMI suppression** and significantly **lower attenuation** than traditional braided cables like RG8. Its low-density foam dielectric provides a **high velocity of propagation**, making it a premier choice for **medium-length antenna runs, wireless local loop (WLL) installations, and high-power jumper assemblies** where a balance of flexibility and signal efficiency is required.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Centre Conductor	Solid Copper Clad Aluminum Wire	1.78
Dielectric	Solid Polyethylene	4.83
1st Outer Conductor	Sealed APA Tape	4.98
2nd Outer Conductor	AL-MgBraid	5.72 (94%)
Jacket	Black PE	7.62

Electrical Specifications

Parameter	Value	Unit
Frequency Range	DC - 6	GHz
Impedance	50	Ω
Propagation Velocity	85	%
Capacitance	78.4	pF/m
Screening Effectiveness	≥90	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	7	Ω/km
Outer Conductor Resistance	7.3	Ω/km
Voltage Withstanding	1500	V DC
Peak Power Rating	7.5	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	35	Kg/km
Single Bending Radius	≥ 20	mm
Repeated Bending Radius	≥ 50	mm

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

Attenuation and Power Rating vs Frequency			
Frequency	**Attenuation (dB/100ft)**	**Attenuation (dB/100m)**	**Avg. Power Rating (kW)**
30 MHz	1.07	3.50	2.09
50 MHz	1.37	4.50	1.62
150 MHz	2.41	7.90	0.92
220 MHz	2.93	9.60	0.76
450 MHz	4.21	13.80	0.52
900 MHz	6.07	19.90	0.36
1500 MHz	7.92	26.00	0.28
1800 MHz	8.75	28.70	0.25
2000 MHz	9.24	30.30	0.24
2500 MHz	10.42	34.20	0.21
5800 MHz	16.52	54.20	0.13

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