

1-1/4" Feeder/Flex Cable

P/N: AT1F114-1S



The **1-1/4" feeder/flex cable** is a high-capacity, **ultra-low-loss 50-ohm coaxial cable** hardline designed for high-power transmission over very long distances. Due to its massive diameter and corrugated copper outer conductor, it provides the lowest signal attenuation in the feeder family, ensuring maximum signal strength reaching the antenna. It features **100%**

EMI shielding and a **rugged, weather-resistant jacket**, making it the premier choice for **high-power broadcast transmitters, major 5G/LTE macro cell sites, satellite ground stations and large-scale radar installations, massive Distributed Antenna Systems in large venues and long-haul microwave links**. Its superior power handling and **low Passive Intermodulation (PIM)** are essential for maintaining network efficiency in high-traffic, wide-area infrastructure.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Inner Conductor	Smooth Copper Tube	13.0±0.02
Dielectric	Foamed Polyethylene	32.8±0.4
Outer Conductor	Corrugated Copper Tube	35.8±0.4
Jacket	Low Smoke Halogen-free Fire-Retardant or Black PE	38.60±0.5

Electrical Specifications

Parameter	Value	Unit
Operating Frequency	≤ 4.0	GHz
Impedance	50±1	Ω
Propagation Velocity	88	%
Capacitance	76.0	pF/m
Screening Effectiveness	≥120	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	≤0.65	Ω/km
Outer Conductor Resistance	≤0.55	Ω/km
RF Peak Voltage	4.30	kV
Dielectric Strength	10	kV
Peak Power Rating	205	kW
PIM	≤ -160	dBc@(2×43dBm)



Technical Data Sheet

Electrical Performance (VSWR)

Frequency Range	Typical VSWR Value
800~1000 MHz	≤ 1.10
1700~2200 MHz	≤ 1.10
2200~2700 MHz	≤ 1.10
3300~3800 MHz	≤ 1.15

Mechanical Specifications

Parameter	Value	Unit
Weight	1000	Kg/km
Single Bending Radius	≥ 150	mm
Repeated Bending Radius	≥ 380	mm
Tensile Strength	2900	N
Number of Bends	15	
Recommended Clamp Spacing	1.0	m

Environmental Specifications

Parameter	Value	Unit
Storage Temperature	-55 ~ 85	°C
Installation Temperature	-40 ~ 60	°C
Operation Temperature	-55 ~ 85	°C



Technical Data Sheet

Attenuation & Power Rating vs Frequency			
Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power Rating (kW)
100	0.8	0.24	12.52
150	0.98	0.3	10.27
200	1.15	0.35	8.64
280	1.38	0.42	7.34
450	1.78	0.54	5.52
800	2.47	0.75	4.03
900	2.64	0.8	3.73
1000	2.8	0.85	3.50
1500	3.56	1.09	2.80
1800	3.96	1.21	2.50
2000	4.23	1.29	2.31
2200	4.48	1.37	2.19
2400	4.75	1.45	2.08
2500	4.84	1.48	2.02
3000	5.42	1.65	1.79

Standard Conditions

For Attenuation: VSWR: 1.0, Cable temperature: 20°C (68°F)

For Average Power: VSWR: 1.0, Ambient temperature: 40°C (104°F), Inner conductor temperature: 100°C (212°F)

Note: Maximum attenuation value shall be 105% off nominal attenuation value.