

## 5/8" Feeder/Flex Cable

P/N: AT1F58-1S



The **5/8" feeder cable** is a high-performance, **low-loss 50-ohm coaxial cable** hardline that serves as an optimized middle ground between 1/2" and 7/8" cables. It is engineered for low signal attenuation **and high power handling** while maintaining a more manageable bend radius than larger diameter cables. Featuring a corrugated copper outer conductor for **100%**

**EMI shielding** and a **UV-resistant jacket**, it ensures long-term reliability in harsh outdoor environments. This cable is an excellent choice for **Wireless Local Loop (WLL)**, **medium-range cellular deployments**, **Distributed Antenna Systems (DAS)**, **microwave links** and **RF Jumper Integration** where balancing physical flexibility with low-loss performance is essential for network efficiency.

### Construction Specifications

Description	Material & Plating	Diameter (mm)
Inner Conductor	Smooth Copper Tube	7.00±0.02
Dielectric	Foamed Polyethylene	18.00±0.4
Outer Conductor	Corrugated Copper Tube	19.70±0.5
Jacket	Low Smoke Halogen-free Fire-Retardant PE	21.90±0.5

### Electrical Specifications

Parameter	Value	Unit
Operating Frequency	≤ 6.5	GHz
Impedance	50±1	Ω
Propagation Velocity	88	%
Capacitance	76	pF/m
Screening Effectiveness	≥120	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	≤ 1.15	Ω/km
Outer Conductor Resistance	≤ 1.25	Ω/km
RF Peak Voltage	2.5	kV
Dielectric Strength	10.0	kV
Peak Power Rating	62	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	≤ 1.10

### Mechanical Specifications

Parameter	Value	Unit
Weight	400	Kg/km
Single Bending Radius	≥ 75	mm
Repeated Bending Radius	≥ 200	mm
Tensile Strength	1150	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

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## Technical Data Sheet

Attenuation & Power Rating vs Frequency			
Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100 ft)	Average Power Rating (kW)
100	1.49	0.45	5.71
150	2.05	0.62	4.15
200	2.14	0.65	3.97
280	2.90	0.88	2.93
450	3.28	1.00	2.58
800	4.48	1.37	1.89
900	4.77	1.45	1.77
1000	5.06	1.54	1.67
1500	6.42	1.96	1.33
1800	7.02	2.14	1.20
2000	7.46	2.27	1.13
2200	7.87	2.40	1.10
2400	8.27	2.52	1.03
2500	8.60	2.62	0.99
3000	9.41	2.87	0.89

### 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.