Technical Data Sheet

1-5/8" Feeder/Flex Cable

P/N: AT1F158-1S

The **1-5/8" feeder cable** represents the heavyweight class of coaxial hardlines, engineered for **maximum power delivery** and the **lowest possible attenuation** in the industry. Its massive diameter and thick foam dielectric are designed to carry high-frequency signals over extreme distances with virtually zero loss, making it the bedrock of high-capacity infrastructure. With a deep-corrugated copper outer conductor for **100% EMI shielding** and a **heavy-duty, weather-shielded jacket**, this cable thrives in the most demanding mission-critical environments. It is the gold standard for **ultra-high-power broadcast Superstructures, Radar & Defense Systems, Stadium Infrastructure (Mega-DAS)** and **Massive MIMO & 5G Hubs** where signal efficiency directly translates to coverage range.

Construction Specifications

Description	Material & Plating	Diameter (mm)
Inner Conductor	Helical Copper Tube	17.40±0.02
Dielectric	Foamed Polyethylene	42.80±0.2
Outer Conductor	Corrugated Copper Tube	46.50±0.5
Jacket	Low Smoke Halogen-free Fire-Retardant PE	49.50±0.5

Electrical Specifications

Parameter	Value	Unit
Operating Frequency	≤ 3.0	GHz
Impedance	50±1	Ω
Propagation Velocity	88	%
Capacitance	76	pF/m
Screening Effectiveness	≥120	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	≤ 0.91	Ω/km
Outer Conductor Resistance	≤ 0.52	Ω/km
RF Peak Voltage	5.70	kV
Dielectric Strength	10.0	kV
Peak Power Rating	320	kW
PIM	≤ -160	dBc@(2×43dBm)

Ground floor, Plot No -20, (KH No-160/1,street No-3/2, samta Vihar, Mukandpur Extn., North West Delhi, Delhi-110042
Contact: +91 9643592149 Email: info@aetherx.in , Website: www.aetherx.in

Technical
Data Sheet

Electrical Performance (VSWR)	
Frequency Range	**Typical VSWR Value**
500~800 MHz	≤ 1.10
1000~1500 MHz	≤ 1.10
1800~2200 MHz	≤ 1.10
2400~2800 MHz	≤ 1.10

Mechanical Specifications		
Parameter	**Value**	**Unit**
Weight	1.15	Kg/m
Single Bending Radius	≥ 200	mm
Repeated Bending Radius	≥ 510	mm
Tensile Strength	3300	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

Ground floor, Plot No -20, (KH No-160/1,street No-3/2, samta Vihar, Mukandpur Extn., North West Delhi, Delhi-110042
Contact: +91 9643592149 Email: info@aetherx.in , Website: www.aetherx.in

Technical
Data Sheet

Attenuation & Power Rating vs Frequency			
Frequency (MHz)	**Attenuation (dB/100m)**	**Attenuation (dB/100 ft)**	**Average Power Rating (kW)**
100	0.67	0.20	16.90
150	0.84	0.26	13.48
200	0.98	0.30	11.60
280	1.20	0.37	9.47
450	1.53	0.47	7.36
800	2.12	0.65	5.26
900	2.28	0.69	4.93
1000	2.42	0.74	4.61
1500	3.09	0.94	3.64
1800	3.45	1.05	3.27
2000	3.68	1.12	3.00
2200	3.91	1.19	2.85
2400	4.13	1.26	2.70
2500	4.24	1.29	2.61

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.

Ground floor, Plot No -20, (KH No-160/1,street No-3/2, samta Vihar, Mukandpur Extn., North West Delhi, Delhi-110042
Contact: +91 9643592149 Email: info@aetherx.in , Website: www.aetherx.in