

### 1/2" Super Flexible Cable

P/N: AT1S12-1S



The **1/2" superflexible (Superflex) cable** is a highly versatile, **50-ohm coaxial cable** specifically engineered for applications requiring an extremely tight bend radius without compromising signal integrity. Unlike standard 1/2" feeder cables, it features a more deeply corrugated outer conductor, which provides exceptional flexibility and prevents kinking during installation in confined spaces. Its **high-velocity foam dielectric** and robust **UV-resistant jacket** ensure **low attenuation** and **100% EMI shielding**. This makes it the primary choice for **jumper assemblies, In-Building Solutions (IBS)**, and connecting main feeder lines to antennas in **5G/LTE macro sites** and **Small Cell Deployments** where maneuverability and **low Passive Intermodulation (PIM)** are critical.

#### Construction Specifications

Description	Material & Plating	Diameter (mm)
Inner Conductor	Copper-Clad Aluminum Wire	3.60±0.05
Dielectric	Foamed Polyethylene	9.85±0.4
Outer Conductor	Corrugated Copper Tube	12.00±0.4
Jacket	Low Smoke Halogen-free Fire-Retardant or Black PE	1.30±0.5

#### Electrical Specifications

Parameter	Value	Unit
Operating Frequency	≤ 12.5	GHz
Impedance	50±2	Ω
Propagation Velocity	82	%
Capacitance	80	pF/m
Screening Effectiveness	≥120	dB
Insulation Resistance	5000	MΩ-Km
Inner Conductor Resistance	2.97	Ω/km
Outer Conductor Resistance	4.15	Ω/km
RF Peak Voltage	1.13	kV
Dielectric Strength	3.0	kV
Peak Power Rating	19	kW
PIM	≤ -160	dBc@(2×43dBm)



## Technical Data Sheet

### Electrical Performance (VSWR)

Frequency Range	Typical VSWR Value
800~1000 MHz	≤ 1.15
1700~2200 MHz	≤ 1.15
2200~2700 MHz	≤ 1.15
3300~3800 MHz	≤ 1.20

### Mechanical Specifications

Parameter	Value	Unit
Weight	210	Kg/km
Single Bending Radius	≥ 20	mm
Repeated Bending Radius	≥ 60	mm
Tensile Strength	500	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  
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## Technical Data Sheet

Attenuation & Power Rating vs Frequency			
Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power Rating (kW)
100	3.22	0.98	3.03
150	4.05	1.23	2.39
200	4.65	1.42	2.11
280	5.65	1.72	1.69
450	7.20	2.19	1.37
800	9.86	3.01	1.00
900	10.56	3.22	0.94
1000	11.15	3.40	0.88
1500	13.80	4.21	0.70
1800	15.55	4.74	0.63
2000	16.40	5.00	0.59
2200	17.35	5.29	0.56
2400	18.10	5.52	0.53
2500	18.50	5.64	0.52
2600	18.96	5.78	0.50
2700	19.41	5.92	0.49
3000	20.90	6.37	0.48
3300	22.18	6.76	0.45
3400	22.56	6.88	0.44
3500	22.94	6.99	0.43
3600	23.32	7.11	0.43
3800	23.90	7.28	0.41

### 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.

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