

3/8" Feeder/Flex Cable

P/N: AT1F38-1S



The **3/8" feeder cable** is a compact, **low-loss 50-ohm coaxial cable** hardline designed to bridge the gap between small-diameter jumpers and standard 1/2" cables. It features a corrugated copper outer conductor that ensures **100% EMI shielding** and provides a superior balance between flexibility and signal attenuation. With its **UV-resistant jacket** and high-velocity foam dielectric, it is engineered for high reliability and **Outstanding**

Passive Intermodulation (PIM) Performance. This cable is primarily used in **PCS and ESMR base stations, Jumper Assemblies, In-Building Solutions (IBS), Distributed Antenna Systems (DAS), Small Cell Deployments,** and **GPS timing lines** where space is restricted but performance cannot be compromised.

Construction Specifications

| Description | Material & Plating | Diameter (mm) |
|-----------------|---|---------------|
| Inner Conductor | Copper Clad Aluminium Wire | 3.10±0.02 |
| Dielectric | Foamed Polyethylene | 8.35±0.4 |
| Outer Conductor | Corrugated Copper Tube | 9.50±0.4 |
| Jacket | Low Smoke Halogen-free Fire-Retardant or Black PE | 11.20±0.5 |

Electrical Specifications

| Parameter | Value | Unit |
|----------------------------|--------|---------------|
| Operating Frequency | ≤ 13.5 | 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 | ≤3.48 | Ω/km |
| Outer Conductor Resistance | ≤2.85 | Ω/km |
| RF Peak Voltage | 1.0 | kV |
| Dielectric Strength | 4.0 | kV |
| Peak Power Rating | 15.5 | kW |
| PIM | ≤ -155 | 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 | 130 | Kg/km |
| Single Bending Radius | ≥ 40 | mm |
| Repeated Bending Radius | ≥ 90 | mm |
| Tensile Strength | 910 | 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/100 m) | Attenuation (dB/100 ft) | Average Power Rating (kW) |
| 100 | 3.42 | 1.04 | 2.23 |
| 150 | 4.22 | 1.29 | 1.81 |
| 200 | 4.90 | 1.49 | 1.56 |
| 280 | 6.00 | 1.83 | 1.27 |
| 450 | 7.50 | 2.29 | 1.02 |
| 800 | 10.20 | 3.11 | 0.75 |
| 900 | 10.90 | 3.32 | 0.71 |
| 1000 | 11.60 | 3.54 | 0.67 |
| 1500 | 14.40 | 4.39 | 0.53 |
| 1800 | 16.00 | 4.88 | 0.48 |
| 2000 | 17.00 | 5.18 | 0.46 |
| 2200 | 17.90 | 5.46 | 0.43 |
| 2400 | 18.70 | 5.70 | 0.42 |
| 2500 | 19.30 | 5.88 | 0.41 |
| 3000 | 21.30 | 6.49 | 0.37 |

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.