

## AAT-78-FC: 7/8" 50 ohm Coaxial Cable



### Features

- Ultra Low Attenuation
- Copper Shield
- Low VSWR
- Wide Frequency Range
- Excellent Power Rating
- UV Resistant
- Gas Block or Gas Pass

### Materials and Dimensions

<i>Inner Conductor-helical corrugated copper</i>	9.25 mm   0.364 in
<i>Dielectric –foam PE</i>	22.8 mm   0.898 in
<i>Outer conductor – Corrugated copper tube</i>	24.7 mm   0.972 in
<i>Diameter over outer jacket – Polyethylene, Black</i>	27.4 mm   1.079 in

### Mechanical Specifications

<i>Cable Weight</i>	425 kg/km (approx.)
<i>Tensile Strength</i>	1450 N   325 lbs.
<i>Min. Bending Radius (single)</i>	120 mm   4.72 in
<i>Min. Bending Radius (repeated)</i>	250 mm   9.84 in
<i>Number of bends, minimum (typical)</i>	15 (50)
<i>Recommended Hanger Spacing</i>	1.0 m   3 ft.

### Environmental Specifications

<i>Installation Temperature</i>	-25°C to +60°C
<i>Operating Temperature</i>	-40°C to +85°C
<i>Storage Temperature</i>	-70°C to +85°C
<i>2002/95/EC (RoHS)</i>	compliant

### Return Loss

<i>Return Loss</i>	$\leq -26\text{dB @ 698 to 960 MHz}$ $\leq -24\text{dB @ 1710 to 2200 MHz}$
<i>Intermodulation IM3 (GSM-UMTS) maxi.</i>	-158 dBc (-163 dBc typical)

## Electrical Specifications

<b>Impedance</b>	50 ± 1 Ω
<b>Relative Velocity of Propagation</b>	89%
<b>Capacitance (1 kHz)</b>	73.5 ± 1.5 pF/m
<b>Maximum Operating Frequency</b>	5 GHz
<b>Cut-off Frequency</b>	5.3 GHz
<b>Peak Power Rating</b>	95 kW
<b>Insulation Resistance</b>	≥ 10 GΩ x km
<b>Operating Voltage</b>	3000 Vrms
<b>DC Breakdown Voltage</b>	10000 V
<b>Jacket Spark Test Voltage</b>	6300 Vrms
<b>Inner Conductor DC-resistance</b>	≤ 1.55 Ω/km
<b>Outer Conductor DC-resistance</b>	≤ 1.40 Ω/km

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100m)</b>	<b>Average Power (kW)</b>
1	0.10	84
100	1.12	8.9
150	1.37	7.1
450	2.45	3.97
825	3.42	2.86
900	3.56	2.72
1000	3.78	2.57
1700	5.17	1.91
1800	5.25	1.84
1900	5.41	1.79
2000	5.58	1.7
2200	5.89	1.65
2500	6.34	1.53
3000	7.06	1.37
3500	7.73	1.25
3800	8.12	1.18

## Standard Conditions

<b>Attenuation, Ambient Temperature</b>	20°C
<b>Average Power, Ambient Temperature</b>	40°C
<b>Average Power, Inner Conductor Temperature</b>	100°C

## Ordering Information

<b>Part Number</b>	<b>Description</b>	<b>UOM</b>
AAT-78-FC	7/8" 50 ohm Coaxial Cable	Per Ft.

**Disclaimer:** Specifications are subject to change without notice. Information may be changed or updated without notice. American Amplifier Technologies™ may also make improvements and/or changes in the products and/or pricing described at any time without notice.