

## AAT-12-FC: 1/2" 50 ohm Coaxial Cable



### Features

- Ultra Low Attenuation
- Copper Shield
- Low VSWR
- Wide Frequency Range
- Excellent Power Rating
- UV Resistant

### Materials and Dimensions

<i>Inner Conductor-helical corrugated copper</i>	4.8 mm   0.189 in
<i>Dielectric –foam PE</i>	12.1 mm   0.476 in
<i>Outer conductor – Corrugated copper tube</i>	13.8 mm   0.543 in
<i>Diameter over outer jacket – Polyethylene, Black</i>	15.9 mm   0.626 in

### Mechanical Specifications

<i>Cable Weight</i>	0.17 kg/m   0.114 lbs/ft
<i>Tensile Strength</i>	1150 N   258 lbs
<i>Min. Bending Radius (single)</i>	71 mm   2.79 inches
<i>Min. Bending Radius (repeated)</i>	125 mm   4.96 inches
<i>Number of bends, minimum (typical)</i>	15 (50)
<i>Recommended Hanger Spacing</i>	0.8 m   2.62 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>	<i>compliant</i>

### Return Loss & VSWR

1 to 1000 MHz	Return Loss: ≤ -26dB   VSWR: ≤ 1.105:1
1000 to 1900 MHz	Return Loss: ≤ -24dB   VSWR: ≤ 1.140:1
1900 to 2200 MHz	Return Loss: ≤ -24dB   VSWR: ≤ 1.140:1
2200 to 2500 MHz	Return Loss: ≤ -24dB   VSWR: ≤ 1.140:1
2500 to 3000 MHz	Return Loss: ≤ -24dB   VSWR: ≤ 1.140:1

## Electrical Specifications

<i>Impedance</i>	50 ± 1 Ω
<i>Relative Velocity of Propagation</i>	88%
<i>Capacitance</i>	76 pF/m
<i>Inductance</i>	0.190 μH/m
<i>Maximum Operating Frequency</i>	8.8 GHz
<i>Cut-off Frequency</i>	10.0 GHz
<i>Peak Power Rating</i>	40 kW
<i>Insulation Resistance</i>	≥ 10 GΩ x km
<i>DC Breakdown Voltage</i>	6000 V
<i>Jacket Spark Test Voltage</i>	8000 Vrms
<i>Inner Conductor DC-resistance</i>	≤ 1.5 Ω/km
<i>Outer Conductor DC-resistance</i>	≤ 2.3 Ω/km

## Attenuation

<i>Frequency (MHz)</i>	<i>Attenuation (dB/100m)</i>	<i>Average Power (kW)</i>
1	0.20	35.89
100	2.15	3.94
200	3.08	2.75
300	3.81	1.99
400	4.46	1.80
450	4.70	1.80
800	6.35	1.33
900	6.75	1.25
1000	7.20	1.18
1800	9.90	0.86
2000	10.50	0.81
2200	11.10	0.77
2500	11.95	0.73
2700	12.47	0.69
3000	13.20	0.65

## Standard Conditions

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

## Ordering Information

<i>Part Number</i>	<i>Description</i>	<i>UOM</i>
AAT-12-FC	1/2" 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.*