# **High Power Fixed Attenuators (Radiator built-in)**

#### AT-1000 and AT-1100 Series



#### **■**Features

#### 1.Small Size and Economical

Beryllia is used for the material of the resistance element to enable the termination to be of small size and low cost.

#### 2.Connectors Used

In the coupling portion, the AT-1000 Series has an SMA type plug-jack and the AT-1100 Series has an N type plug-jack.

#### 3. High Reliability

These attenuators show stable characteristics for environments of varying temperature, humidity, and gases.

# **■**Product Specifications

Ratings	Frequency range Characteristic impedance Maximum Input Power	DC to 8.0 GHz 50 ohms 10W	Operating temperature range Operating relative humidity	-10°C to +65°C 95% Max.
---------	--	---------------------------------	--	----------------------------

Item	Standard	Conditions		
1.Vibration	No electrical discontinuity of 1 $\mu$ s or more	Frequency of 10 to 2000 Hz, overall amplitude of 1.52 n acceleration of 98 m/s² for 2 hours in each of 3 directions		
2.Shock	No damage, cracks, or parts dislocation	Acceleration of 490 m/s², sine half-wave waveform, 3 cycles in each of the 3 axis		
3.Temperature cycle	No damage, cracks, or parts dislocation	Temperature: $-55^{\circ}\mathbb{C} \to +15^{\circ}\mathbb{C}$ to $+35^{\circ}\mathbb{C} \to +85^{\circ}\mathbb{C} \to +15^{\circ}\mathbb{C}$ to $+35^{\circ}\mathbb{C}$ Time: $30 \to 15$ max. $\to 30 \to 15$ max. (Minutes) 5 cycles		

<sup>●</sup>The test method conforms to MIL-STD-202.

### **■**Materials

Part	Material	Finish		
Connector Body (Note)	Stainless steel	Passivated		
Insulator	PTFE			
Male contacts	Brass	Gold plating		
Female contacts	Beryllium copper	Gold plating		
Outer conductor	Aluminum	Nickel plating		
Coupling (Note)	Stainless steel	Passivated		
Radiator	Aluminum	Black alumite		
Attenuation element	Metal film			

Note: Nickel plated brass is used for the body in the AT-1100 Series.

### **■**Ordering Information

 $\frac{AT}{\bullet} - \frac{10}{2} \frac{01}{6} \frac{(40)}{4}$ 

AT: Indicates a fixed attenuator	3 Attenuation		
	01: 1dB		
2 Indicates the Series Name (Coupling Portion)	03: 3dB		
10: SMA type plug - jack	10: 10dB		
11: N type plug - jack	20: 20dB		
	4 (40): RoHS compliant		

△CAUTION: Beryllia is used in this product. Please follow associated laws when disposing.

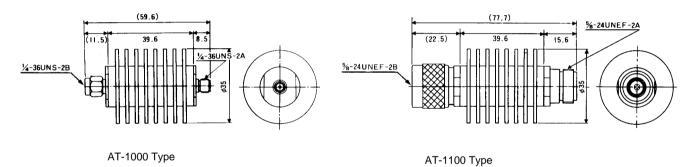


All non-Roll arrol to have de arreign project series of the disposition of the dispositio

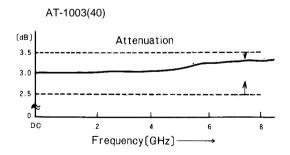
# **■**Specifications

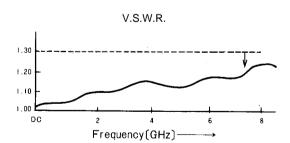
Part Number	Frequency Range (GHz)	Attenuation (dB)	V.S.W.R. (Max)	Impedance (ohms)	Power (W)	Connectors	Weight (g)	RoHS
AT-1001(40)	DC~8	1±0.5	1.3	50	10	HRM-J·P	80	
AT-1002(40)	DC~8	2±0.5	1.3	50	10	HRM-J·P	80	
AT-1003(40)	DC~8	3±0.5	1.3	50	10	HRM-J·P	80	
AT-1006(40)	DC~8	6±0.7	1.3	50	10	HRM-J·P	80	
AT-1010(40)	DC~8	10±1.0	1.3	50	10	HRM-J·P	80	YES
AT-1020(40)	DC~8	20±1.2	1.3	50	10	HRM-J · P	80	IES
AT-1103(40)	DC~8	3±0.5	1.3	50	10	H-J·P	124	
AT-1106(40)	DC~8	6±0.7	1.3	50	10	H-J·P	124	
AT-1110(40)	DC~8	10±1.0	1.3	50	10	H-J·P	124	
AT-1120(40)	DC~8	20±1.2	1.3	50	10	H-J·P	124	

### **■**External Dimensions



# **■**Typical Data





# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## **Hirose Electric:**

 $\frac{\text{AT-1020(40)}}{1006(40)} \; \frac{\text{AT-1103(40)}}{\text{AT-1010(40)}} \; \frac{\text{AT-1002(40)}}{\text{AT-1002(40)}} \; \frac{\text{AT-1120(40)}}{\text{AT-1003(40)}} \; \frac{\text{AT-1110(40)}}{\text{AT-1110(40)}} \; \frac{\text{AT-1106(40)}}{\text{AT-1010(40)}} \; \frac{\text{AT-1100(40)}}{\text{AT-1010(40)}} \; \frac{\text{AT-1100(40)}}{\text{AT-1010(40)}}$