

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.
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Item	Standard	Conditions
1. Vibration	No electrical discontinuity of 1 μ s or more No damage, cracks, or parts dislocation	Frequency of 10 to 2000 Hz, overall amplitude of 1.52 mm, acceleration of 98 m/s ² for 2 hours in each of 3 directions
2. Shock		Acceleration of 490 m/s ² , sine half-wave waveform, 3 cycles in each of the 3 axis
3. Temperature cycle	No damage, cracks, or parts dislocation	Temperature: -55°C → +5°C to +35°C → +85°C → +5°C to +35°C Time: 30 → 15 max. → 30 → 15 max. (Minutes) 200 cycles

● 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

AT - 10 01
① ② ③

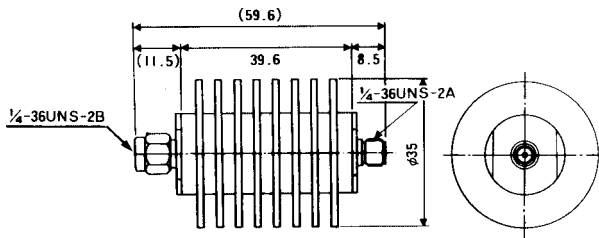
① AT: Indicates a fixed attenuator	③ Attenuation
	01 : 1dB
② Indicates the Series Name (Coupling Portion)	03 : 3dB
10: SMA type plug - jack	10 : 10dB
11: N type plug - jack	20 : 20dB

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

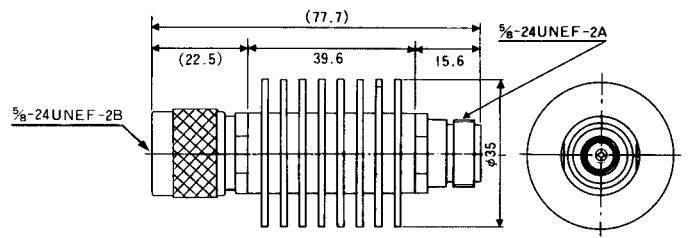
■ Specifications

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

■ External Dimensions

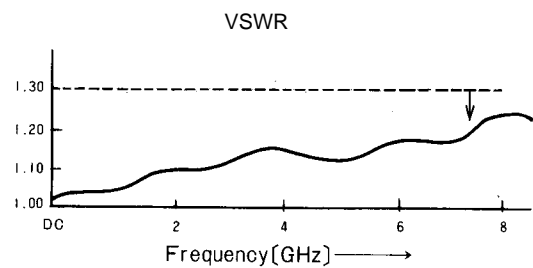
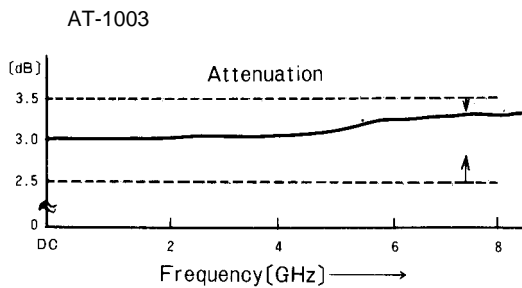


AT-1000 Type



AT-1100 Type

■ Typical Data



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Datasheets for electronics components.