The product information in this catalog is for reference only. Please request the Engineering Drawing for the most current and accurate design information. All non-RoHS products have been discontinued, or will be discontinued soon. Please check the products status on the Hirose website RoHS search at www.hirose-connectors.com, or contact your Hirose sales representative.

High Power Fixed Attenuators (Heat sink Mounting Type)

AT-1200 and AT-1300 Series



Features

1.Small Size and Economical

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

2. High Power Capacity

Mounting these attenuators to a heat sink permits the AT-1200 Series to be used at up to 30 W and the AT-1300 Series to be used at up to 50 W.

3. High Reliability

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

■Product Specifications

Ratings	Frequency range (Note) Characteristic impedance Maximum Input Power (Note)	DC to 2.0 GHz 50 ohms 30 to 50 W	Operating temperature range Operating relative humidity	−10℃ to +65℃ 95% Max.
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Note: The frequency range and the maximum input power will differ depending on the products.

Item	Standard	Conditions		
1.Vibration	No electrical discontinuity of 1 μ s or more	Frequency of 10 to 2000 Hz, overall amplitude of 1.52 r acceleration of 98 m/s ² for 2 hours in each of 3 direction:		
2.Shock	No damage, cracks, or parts dislocation	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 $\rightarrow +15^{\circ}$ C to $+35^{\circ}$ C $\rightarrow +85^{\circ}$ C $\rightarrow +15^{\circ}$ C to $+35^{\circ}$ C Time: 30 \rightarrow 15 max. \rightarrow 30 \rightarrow 15 max. (Minutes) 5 cycles		

•The test method conforms to MIL-STD-202.

Materials

Part	Material	Finish		
Connector Body	Stainless steel	Passivated		
Body	Aluminum	Conductive white alumite		
Female contacts	Beryllium copper	Gold plating		
Insulation	PTFE			
Attenuation element	Metal film			

Ordering Information



AT: Indicates a fixed attenuator	3 Attenuation		
	10 : 10dB		
Indicates the Series Name	20 : 20dB		
(Maximum Usable Power)	Coupling Portion		
12: HRM type plug - jack 30W	H·J : SMA type jack - jack		
13: N type plug - jack 50W	N·H : N type jack - SMA type jack		
	(40): RoHS Compliant		



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■Specifications

	Part Number	Frequency Range (GHz)	Attenuation (dB)	V.S.W.R. (Max)	Impedance (ohms)	Power (W)	Heat Sink Temperature at Maximum Load (°CMax)	Connectors	Weight (g)	RoHS
⚠	AT-1210-H · J	DC~1	10±0.5	1.2	50	30W(CW)	+65	HRM-J · J	54	
⚠	AT-1220-H · J	DC~1	20±0.5	1.2	50	30W(CW)	+65	HRM-J · J	54	YES
⚠	AT-1310-H ⋅ J ※	DC~2	10±0.5	1.2	50	50W(CW)	+65	HRM-J · J	54	TES
⚠	AT-1320-H ⋅ J ※	DC~2	20±0.5	1.2	50	50W(CW)	+65	HRM-J · J	54	

*The AT-1300 Series has input and output directivity.

ABeryllia is used in this product. Please follow associated laws when disposing.

External Dimensions



AT-1300-H · J(40)

■Typical Data



2

Frequency(GHz)

3



