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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

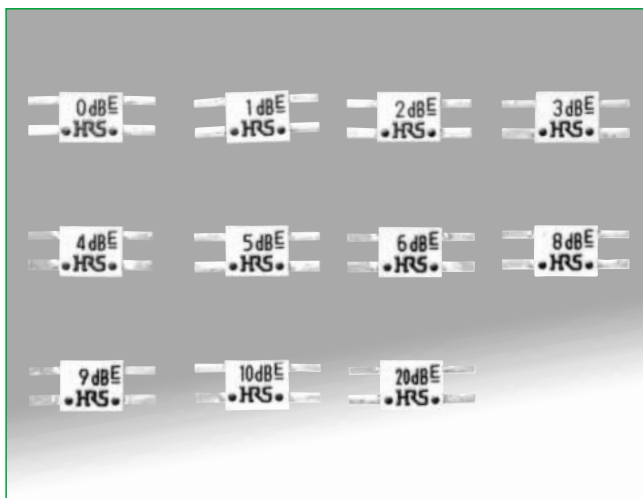
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Stripline Mounting Fixed Attenuators

AT-2300 Series



■ Features

1. Wide Range of Variations for Each Type of Attenuator

Attenuation levels available in 1 dB steps from 0 to 6 dB and from 8 to 10 dB, and 20 dB for a total of 11 types of variations.

■ Product Specifications

Ratings	Frequency range	DC to 2.5GHz (Note)	Operating temperature	-10°C to +65°C
	Characteristic impedance	50 Ω	Operating humidity	95% max.
	Maximum input power	1W		

Note: DC to 600MHz for AT-2320.

Item	Requirement	Conditions
1.Vibration	No electrical discontinuity of 1 μ or more. No damage, cracks, or parts dislocation.	Frequency of 10 to 2000 Hz, overall amplitude of 1.5mm, acceleration of 98m/s ² , 2 hours in each of the 3 directions.
2.Shock		Acceleration of 490m/s ² , sine half-wave waveform, 3 cycles in each of the 3 axis.
3.Temperature cycle		Temperature : -55°C → +15°C to +35°C → +85°C → +15°C to +35°C Time : 30 → 2 to 3 → 30 → 2 to 3 (Minutes) 5 cycles

The test method conforms to MIL-STD-202.

■ Materials / Finishes

Component	Material	Finish
Attenuation element	Metal film	—
Tab	Copper	Tin-lead plating

■ Ordering information

AT-23 01 (40)

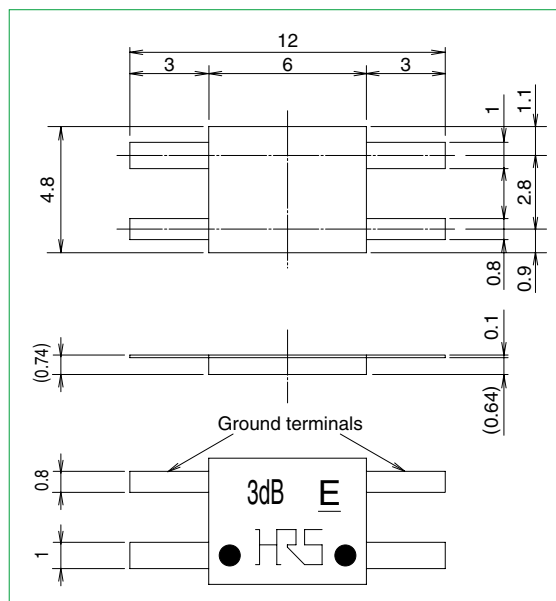
- ① ② ③ ④

*Each attenuator is supplied in individual package

① AX:Fixed attenuator
② Series name :2300 Series
③ Attenuation 00-(0) : 0 dB (Through) 01 : 1dB 06 : 6dB
④ (40): RoHS Compliant

■ Dimensions

AT-2303 shown

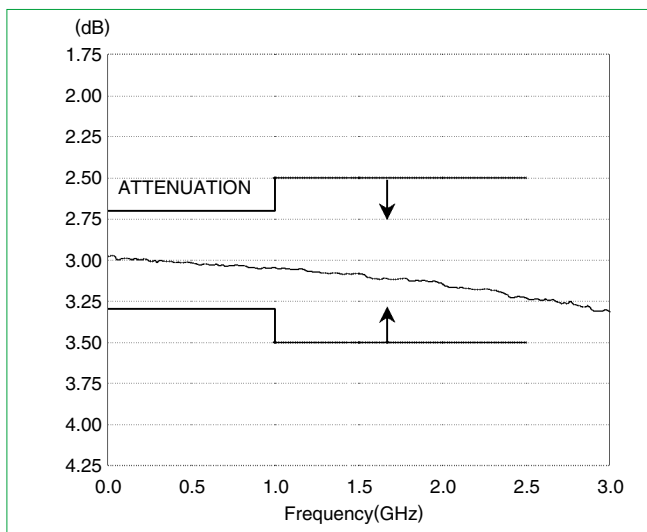


Specifications

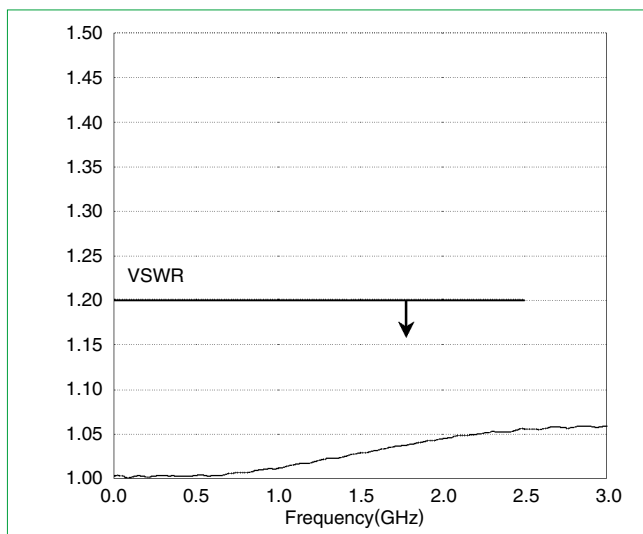
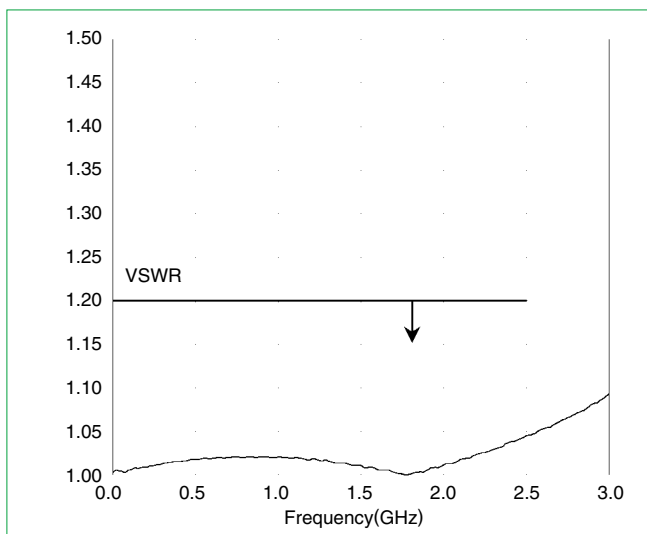
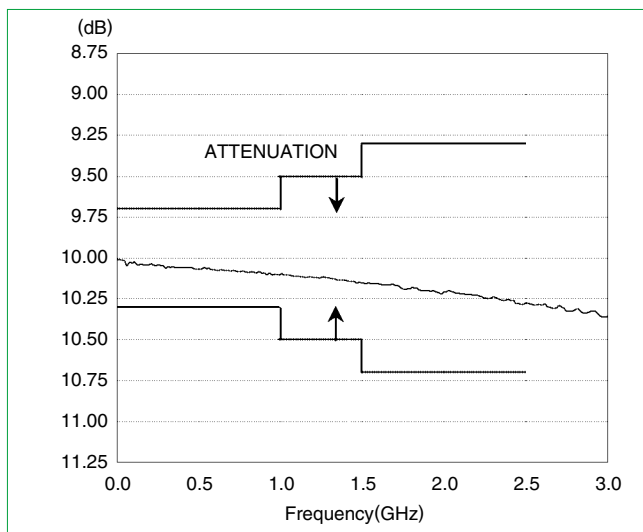
Part number	Attenuation (dB)			V.S.W.R(Max) DC~2,500MHz	Characteristic Impedance (Ω)	Power (W)	Mounting surface temperature (°C Max.) at time of maximum input power	Weight (g)
	DC~1,000MHz	1,000~1,500MHz	1,500~2,500MHz					
AT-2300-(0)(40)	0 ^{+0.3}	0 ^{+0.5}		1.2	50	1	+85	0.2
AT-2301(40)	1±0.3	1±0.5		1.2	50	1	+85	0.2
AT-2302(40)	2±0.3	2±0.5		1.2	50	1	+85	0.2
AT-2303(40)	3±0.3	3±0.5		1.2	50	1	+85	0.2
AT-2304(40)	4±0.3	4±0.5		1.2	50	1	+85	0.2
AT-2305(40)	5±0.3	5±0.5		1.2	50	1	+85	0.2
AT-2306(40)	6±0.3	6±0.5		1.2	50	1	+85	0.2
AT-2308(40)	8±0.3	8±0.5		1.2	50	1	+85	0.2
AT-2309(40)	9±0.3	9±0.5		1.2	50	1	+85	0.2
AT-2310(40)	10±0.3	10±0.5	10±0.7	1.2	50	1	+85	0.2
AT-2320(40)	20±1.5(DC~600MHz)			1.2(DC~600MHz)	50	1	+85	0.2

Typical data

AT-2303(40)

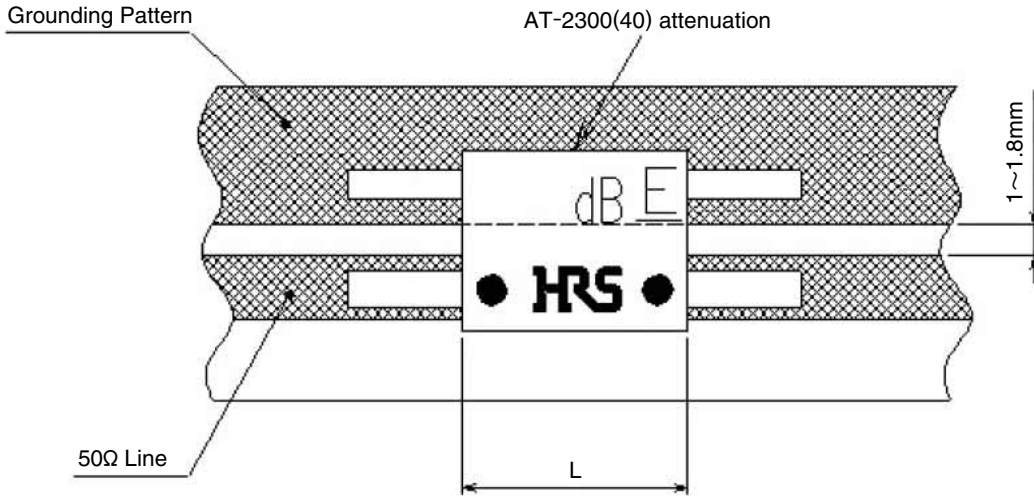


AT-2310(40)

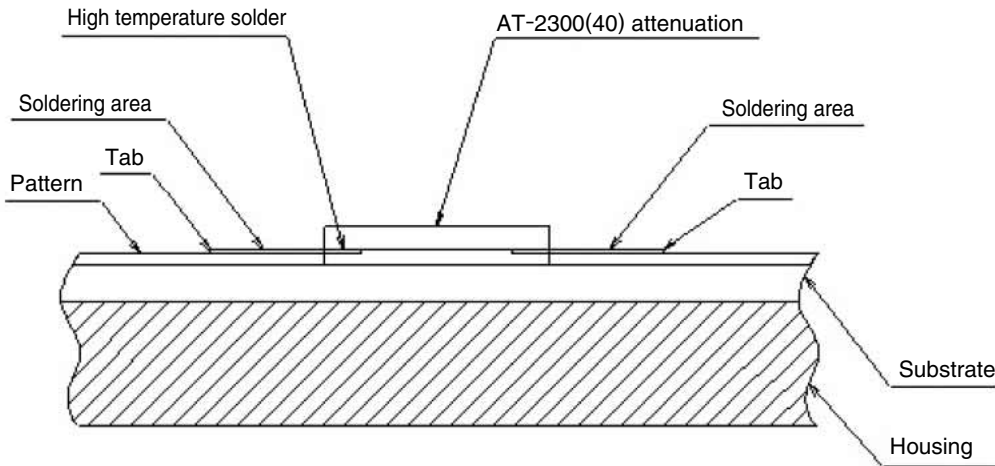


AT-2300 Series Series ● Stripline Mounting Fixed Attenuators

■ Recommended Mounting Pattern



* The dotted line portion indicates the position of the pattern.



- * Set interval L of the signal pattern to 6 mm and interval S of the signal pattern and ground pattern to 1 to 1.8 mm.
- * Press the red seal onto the microstrip line surface and solder the tab.
- * Tab Soldering Conditions
 - Soldering iron tip temperature: 260 to 290°C
 - Time: Within 5 seconds
- * Note that although the high frequency characteristics will be somewhat degraded, please attach the tab with some slack in order to improve the thermal reliability.