

# VAS074501\*2\* Miniature Variable Attenuator

International invention patent

## Manual Step Attenuator

- DC to 5.8GHz
- 0 to 45dB in 1dB Step
- 2 Watt
- Choice of SMA or N Type Connectors

### Features

- Using advanced microstrip technology, ultra-small size
- Attenuation values are adjustable in a power-on state, no sudden big reflection.

It adopts an innovative technology, and thus it eliminates sudden big reflection in attenuators when attenuation is being adjusted, preventing the preliminary RF circuit from being burnt, and keeping the system stable

- Step values: 1dB, 2dB, 4dB, 8dB,10dB,10dB,10dB
- 46 attenuation values
- High attenuation accuracy, low insertion loss
- High adjustment accuracy
- Low cost High Performance
- Adjusting the transmitting (receiving) distance of RF signal precisely. Adjusting accuracy is limited to 5cm.
- Switch repeatability avg.> 10000 operations (5000 cycles) per switch.
- PC(Polycarbonate) Switch, operating temperature of 120°C is available.
- Attenuation values are adjustable in a power-on state, test data can be read continuously, no interruption.

### Characteristic

For example the testing curves of VAS074501N2 of 45dB







# RoHS

### **Specifications**

Frequency RangeDC to 5.8GHzAttenuation0 to 45dBStep Value1dBInsertion loss at 0dB (typ.)1.9dB DC to 4 GHz2.4dB 4 to 5 GHz3.0dB 5 to 5.8 GHzInsertion loss at 0dB (Max.)2.2dB DC to 4 GHz2.8dB 4 to 5 GHz3.5dB 5 to 5.8 GHz

#### Attenuation Accuracy (typ.) -0.1dB~+2.8dB in DC to 4 GHz 0~+4.0 dB in 4 to 5 GHz -0.5dB~+5.2dB in 5 to 5.8 GHz Attenuation Accuracy (Max.) -0.3dB~+3.5dB in DC to 4 GHz 0~+4.6 dB in 4 to 5 GHz -1dB~+6.0dB in 5 to 5.8 GHz

Nominal Impedance50 OhmAverage Power2 WattOperating Temperature-40 °C to +85 °C

Frog Bongo (CHa)	VSWR(:1)			
Freq. Range (GHz)	Тур.	Max.		
DC to 4	1.20	1.5		
4 to 5.8	1.30	1.55		

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Model No. Description								
VAS	**	**	**	*	*	*		
	Туре	Attenuation Range	Step Value	Connector Type	Max. Power	Connector Option		
VAS: Step Variable Attenuator								
Type: 07 represents type number								
Attenuation Range: Maximum attenuation.								
Connector Type: S and N available. S is SMA and N is N type connector.								
Max. Power: 2 and 5 are available, currently 2W and 5W are available.								
Connector Options:								
Options	i IO							
1	Fer	nale/Female						
2	Mal	e/Female						
3	Mal	e/Male						
Connector P	osition: "A" repr	esents back connecto	ore without "A"	' represents left and i	ight connectors			

Connector Position: "A" represents back connectors, without "A" represents left and right connectors.

### **Package Outlines**

### SMA Connector

Unit:mm(inch)



Package type: S21

### N-type Connector



NOTE:

#### 1. ALL dimensions shown in mm(tolerance: +/-0.2mm) unless stated otherwise

2. RoHS Compliant in accordance with EU Directive(2011/65/EU)

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## Attention



It is much easier to adjust the switch by tools like plastic screw driver.