



### Features

- Operating to 40GHz and 100W CW power handling
- Specially designed 2.92mm connector with minimized insertion loss and increased power handling
- Efficient and convenient forced air cooling
- Compact, light weight and self-contained design
- Fast delivery, competitive price



### Description

RFH40XXKD100A attenuator from RF ONE operates to 40GHz and handles average power 100 Watts with specially designed 2.92mm connectors. This attenuator provides a fully self-contained and convenient means of dissipating heat through the built-in fan in a chassis measuring 145x160x178mm, eliminating use of complicated installation and setup procedures. The fan operates in voltage 200-230V @ 50 Hz, transformer and plug adapter available.

It also features compact, rugged and very light weight design (1kg), which greatly saves space on the crowded test bench.

Now available in 10dB, 20dB, 30dB, 40dB , with accuracy -4.0/+4.0db and max VSWR 1.40 to 40GHz.

### Electrical

<b>Impedance</b>	50 ohm					
<b>Frequency Range</b>	DC-40 GHz					
<b>VSWR</b>	1.4 max					
<b>Input Avg Power</b>	100W@ 25°C ambient, derating linearly to 10W at 125°C					
<b>Peak Power</b>	1000W (5 micro-sec pulse width, 5% duty cycle)					
<b>Direction</b>	Unidirectional, 2.92mm male input, 2.92mm female output (other configurations available)					
<b>Electrical Fan</b>	200-230V @ 50 Hz					

<b>Attenuation(dB)</b>	10	20	30	40	50	60
<b>Accuracy(dB)</b>	-4.0/+4.0	-4.0/+4.0	-4.0/+4.0	-4.0/+4.0	-4.0/+4.0	-4.0/+4.0

### Mechanical

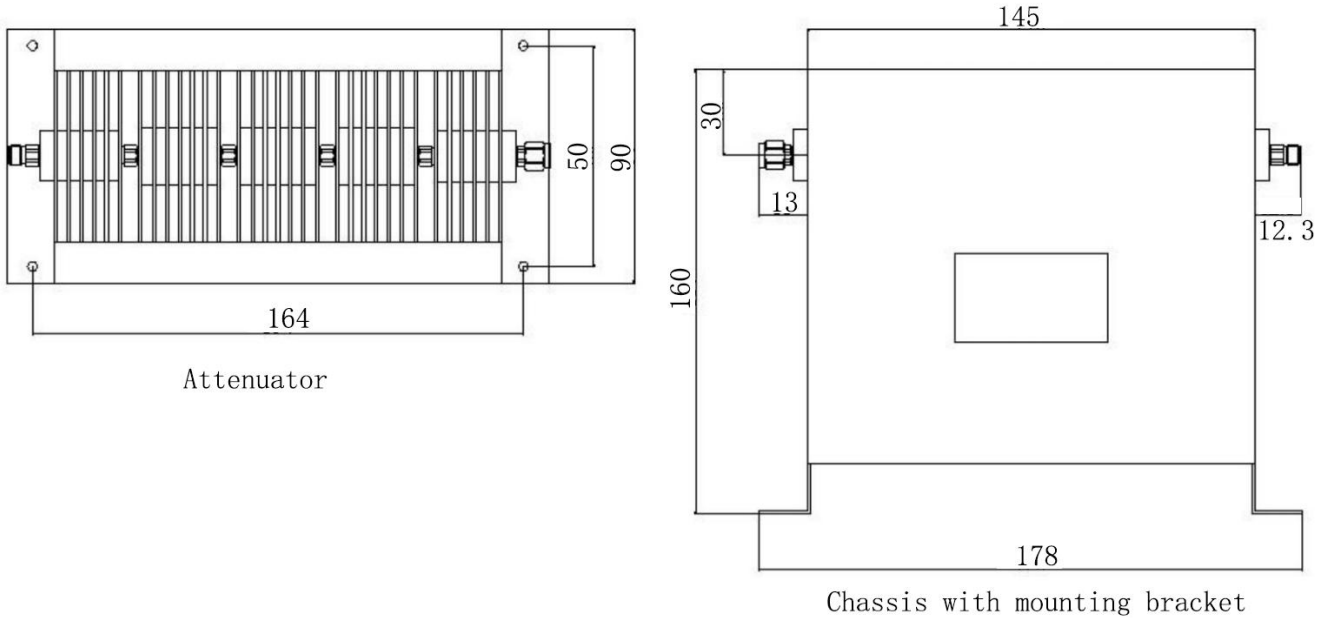
<b>Connector Body</b>	Passivated stainless steel
<b>Heat Sink &amp; Chassis</b>	Black anodized aluminum
<b>Center Contact</b>	1.27um Gold plated BeCu/brass
<b>Weight</b>	Approx 1kg

### Environmental

<b>Operating Temperature</b>	-55°C to 125°C
<b>Storage Temperature</b>	-55°C to 125°C
<b>RoHS</b>	Compliant
<b>Temperature Coefficient</b>	<0.0004 dB/dB/°C



Dimensions(mm)



Notes

1. Always pay attention to the direction of attenuators.
2. This attenuator is shipped in a chassis which includes a built-in electrical fan and power cord.
3. Additional transformer and plug adapter available upon request. A=female for two ends; B=male for two ends
4. Switch on the electrical fan once the attenuator is in operation. C=female for input and male for output; D=male for input and female for output.

Model Description

RFH40XXKD100A

1. XX for dB value: 20=20dB, 30=30dB

2. Code for connector configuration:

C=female for input and male for output;

D=male for input and female for output.



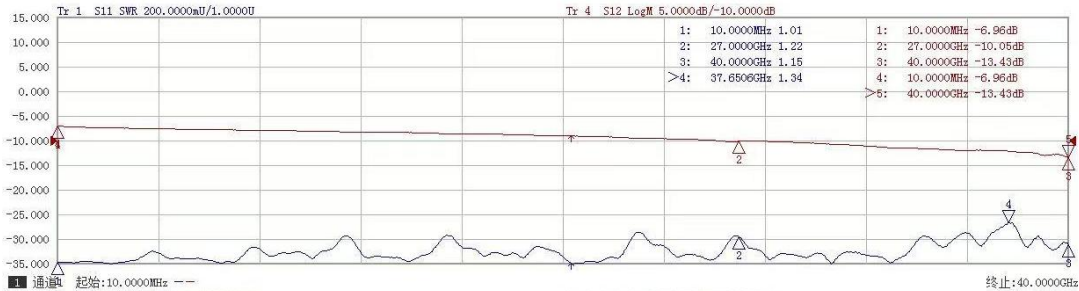
# Coaxial Fixed Attenuator

# RFH40XXKD100A

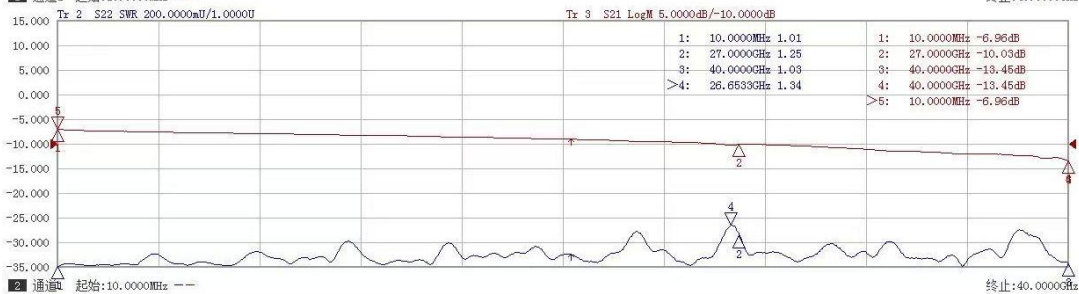
DC-40 GHz, 100 Watts, 2.92mm, Unidirectional, Forced air cooled

Rev 3

Typical Test Data(Contact us at [sales@rfone.cn](mailto:sales@rfone.cn) for test plots of more models)



10dB

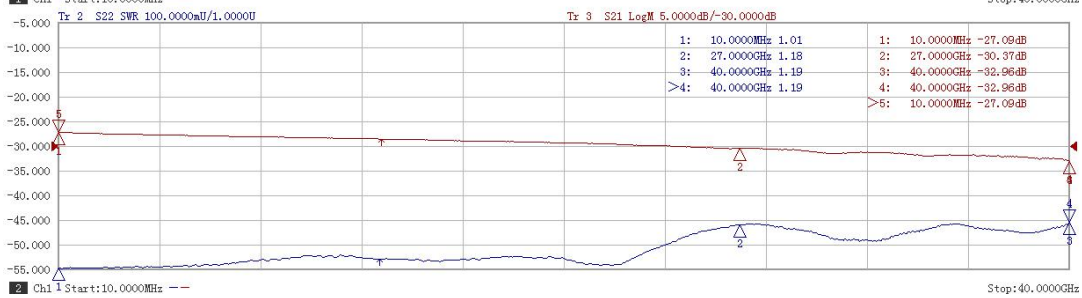


20dB

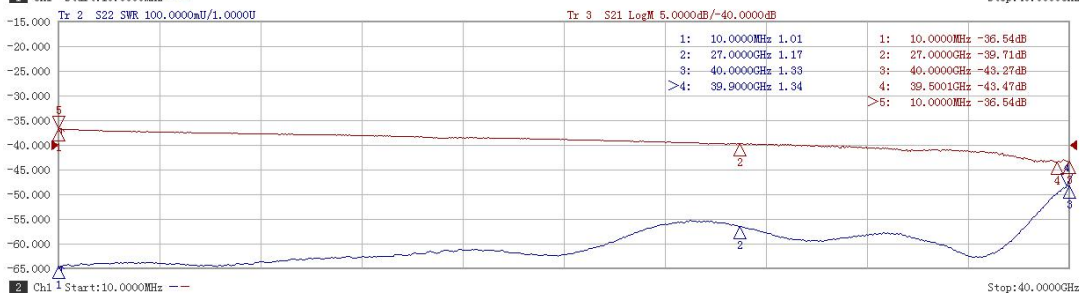




30dB



40dB

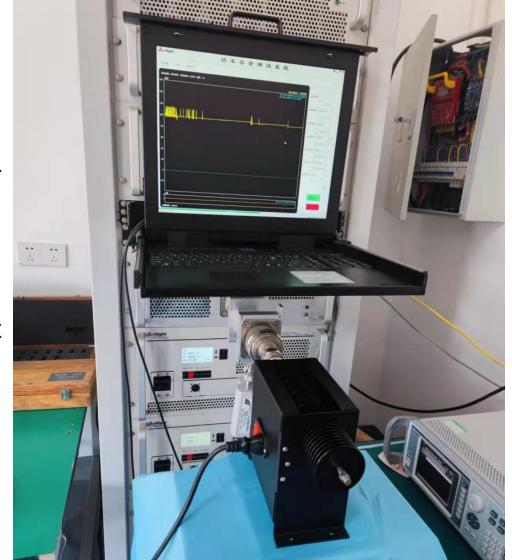




### Power Handling Test

#### Test Procedures

- 1) Measure and record the attenuator accuracy and VSWR by VNA.
  - 2) Switch on the electrical cooling fan, input 100W RF power to the DUT attenuator.
  - 3) Measure and record the attenuator case temperature by thermal imager from test beginning to 60 minutes and till the attenuator reaches heat equilibrium on its surface.
  - 4) Measure and record the attenuator accuracy and VSWR by VNA.
- The accuracy and VSWR should be both in line with specs.



#### Case Temperature Records

Input 100 Watt CW RF power, Recording Case Temperature of DUT Attenuator									
Test Duration (minutes)	0	5	10	15	20	30	40	50	60
Temperature(°C)	25.0	33.1	55.2	55.5	55.5	56.7	57.5	57.5	57.5

#### S Parameter Measurement After Power Test

