Coaxial Fixed Attenuator RFH40XXKD100A

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

Rev 3

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 100-230V @ 50 Hz, transformer and plug adapter available.

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

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

Electrical

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

Attenuation(dB)	10	20	30	40	50	60
Accuracy(dB)	-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

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

Environmental

Operating Temperature	-55℃ to 125℃
Storage Temperature	-55℃ to 125℃
RoHS	Compliant
Temperature Coefficient	<0.0004 dB/dB/℃

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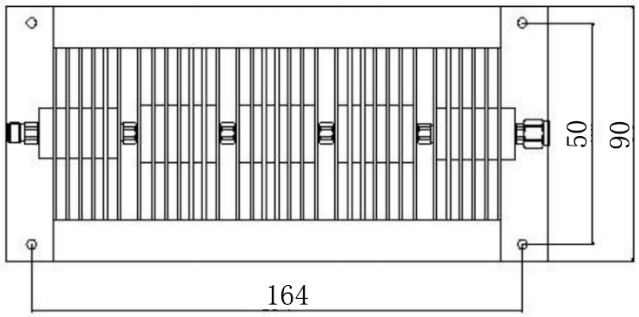
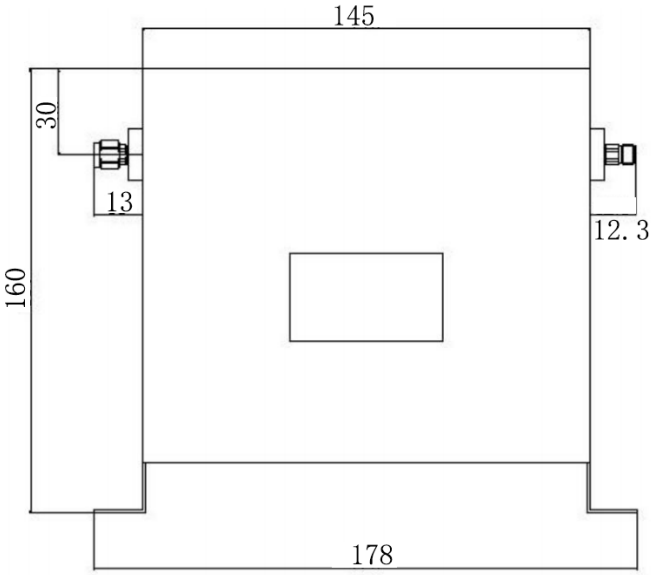
Dimensions(mm)



Attenuator



Chassis with mounting bracket

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.
4. Switch on the electrical fan once the attenuator is in operation.

Model Description

RFH40XXKD100A

1.XX for dB value: 20=20dB,30=30dB
2.Code for connector configuration:
A=female for two ends; B=male for two ends
C=female for input and male for output;
D=male for input and female for output.

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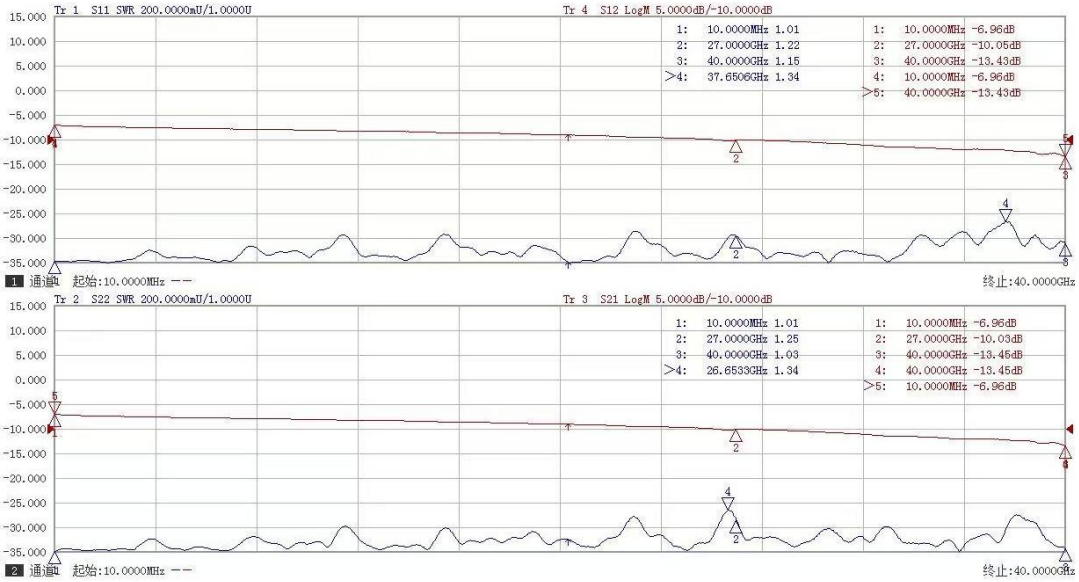
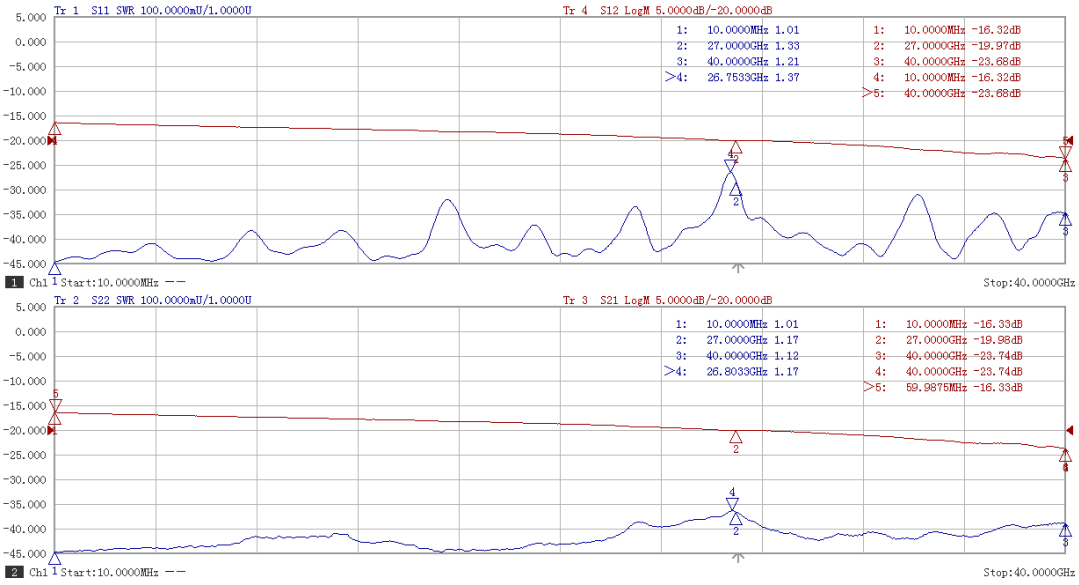
Typical Test Data(Contact us at sales@rfone.cn for test plots of more models)



10dB



20dB

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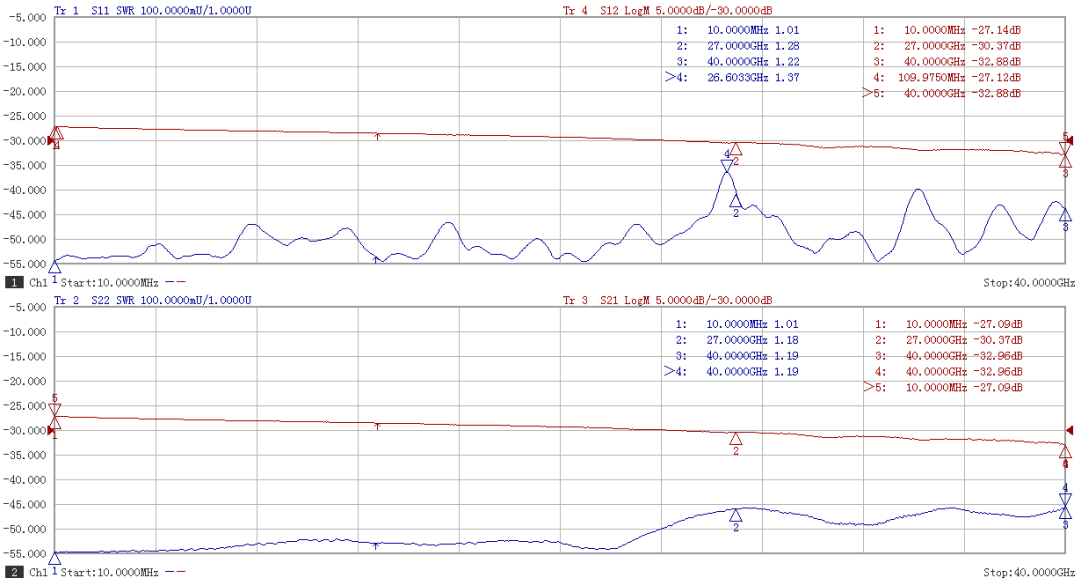
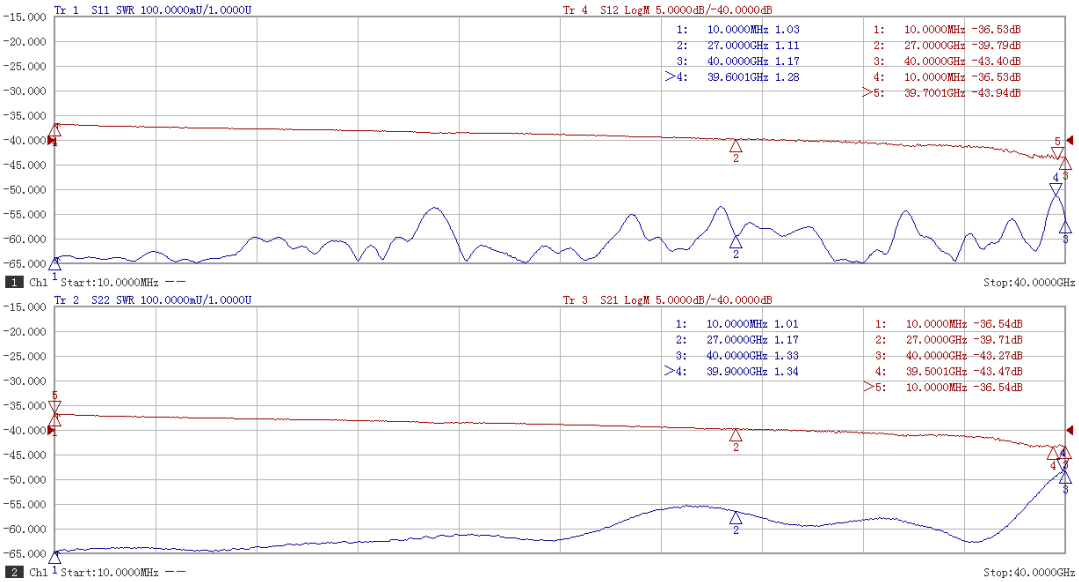
Rev 3



30dB



40dB

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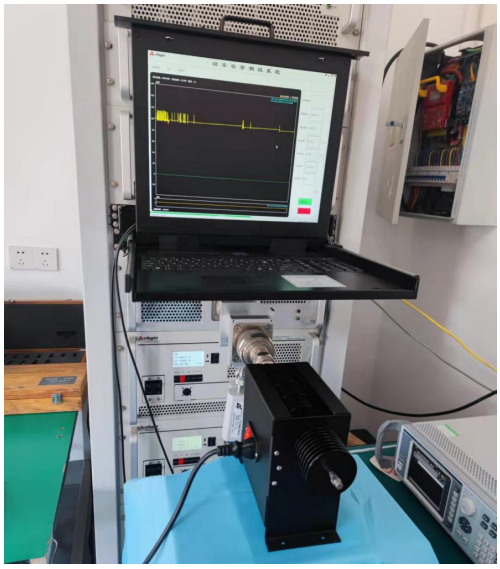
Power Handling Test



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(℃)	25.0	33.1	55.2	55.5	55.5	56.7	57.5	57.5	57.5

S Parameter Measurement After Power Test