

## Rotary Knob Manual Control Step Attenuator DC-8GHz



### Product Description

The RKT2G6A90 is a rotary knob manual control step attenuator with a frequency range of DC to 8GHz.

The attenuator's average power is 2W CW. The attenuation range is 99dB with an attenuation step size of 1dB. The maximum insertion loss is 1.25dB with a VSWR of 1.5:1.

The attenuator's connectors are N-Type.

### Features

- Compact package and broadband performance
- Adjustable during operation
- Excellent repeatability low attenuation error
- 2W CW average power

### Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

### Electrical Specifications (T<sub>A</sub>=+25°C)

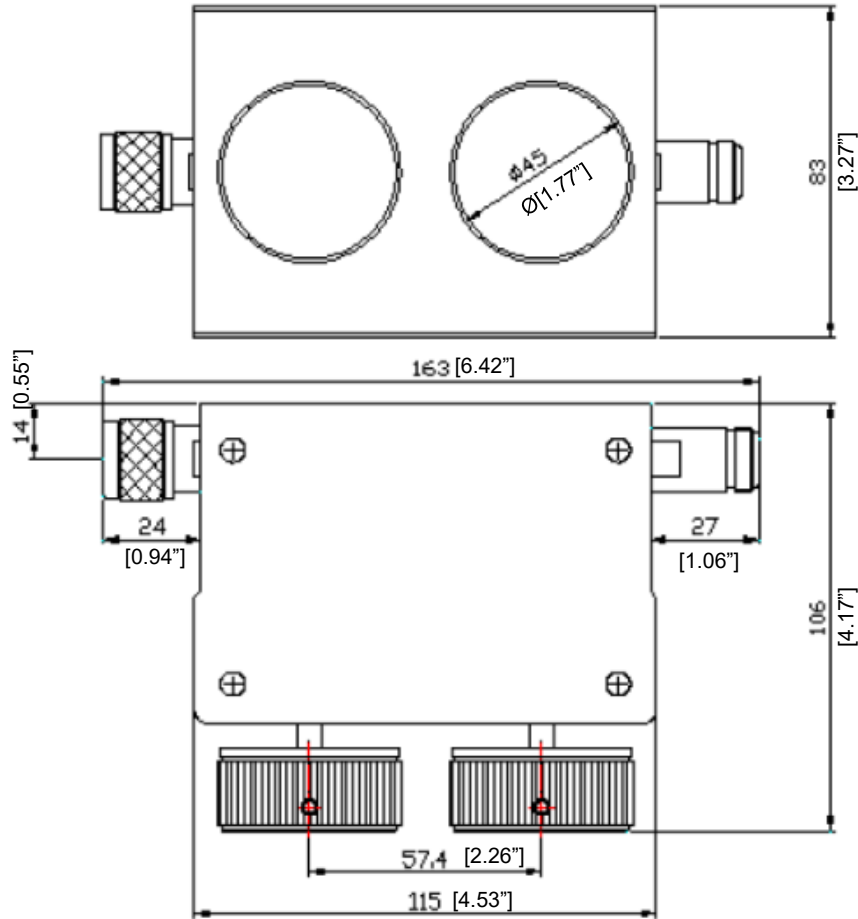
Parameter	Min.	Typ.	Max.	Units
Frequency Range		DC - 8		GHz
Attenuation Step Size		1		dB
Attenuation Range	0		99	dB
VSWR			1.5	:1
Insertion Loss			1.25	dB
Attenuation Accuracy	(0-9dB@DC-8GHz)	±0.5		dB
	(0-9dB@>8GHz)	±0.8		dB
	(10-19dB)	±1.0		dB
	(20-49dB)	±1.5		dB
	(50-69dB)	±2.0		dB
	(70-99dB)	±2.5/3.5%		dB
Average Power			2	W
Weight		2.3 Max.		lbs.
Impedance		50		Ω
Connectors		N-Male~N-Female		
Finish	Connectors	Brass Nickel Plated		
	Male Pin	Brass Gold Plated		
	Female Pin	Beryllium Copper Gold Plated		
	Housing	Aluminum Anodic Oxidation		

**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	0°C to +54°C (Case Temperature)
Storage Temperature	-40°C to +70°C
Thermal Shock	0°C → +54°C (5 Cycles / 10 hours)
*Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

\*For vibration testing details please see additional information section.

Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish : Painted
3. All dimensions are in millimeters [inches].

Additional Information

Documentation	Webpage
ESD Policy	<a href="https://rflambda.com/pdf/rflambda_esd_control.pdf">https://rflambda.com/pdf/rflambda_esd_control.pdf</a>
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RKT2G6A90	connector N-male and connector N-Female	DC-8GHz Rotary Knob Manual Control Step Attenuator

**Important Notice**

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.