

WR15 Waveguide Isolator 50-75GHz 10% BW 57GHz-63GHz Shown



Note: Photo is for illustration purposes only.
Please refer to outline drawing.

Product Description

RFWI15A is a WR15 waveguide isolator with a frequency range of 50 to 75GHz, with a 10% selected BW within the overall range.

The isolator has a typical isolation of 18dB. The maximum insertion loss is 0.6dB.

The isolator input and output connectors are UG385/U.

Features

- High power handling up to 2W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- High peak to average handling capability
- All specifications can be modified upon request

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 ($T_A=+25^{\circ}\text{C}$)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	(50-75GHz with 10% BW) 57-63 shown			GHz
Insertion Loss		0.5	0.6	dB
Isolation	16	18		dB
VSWR		1.5	1.6	:1
Forward Power			2	W
Reverse Power			1	W
Rotation		Clockwise		
Input / Output Connectors		UG385/U		
Weight		Max.		lbs
Impedance		-----		Ω

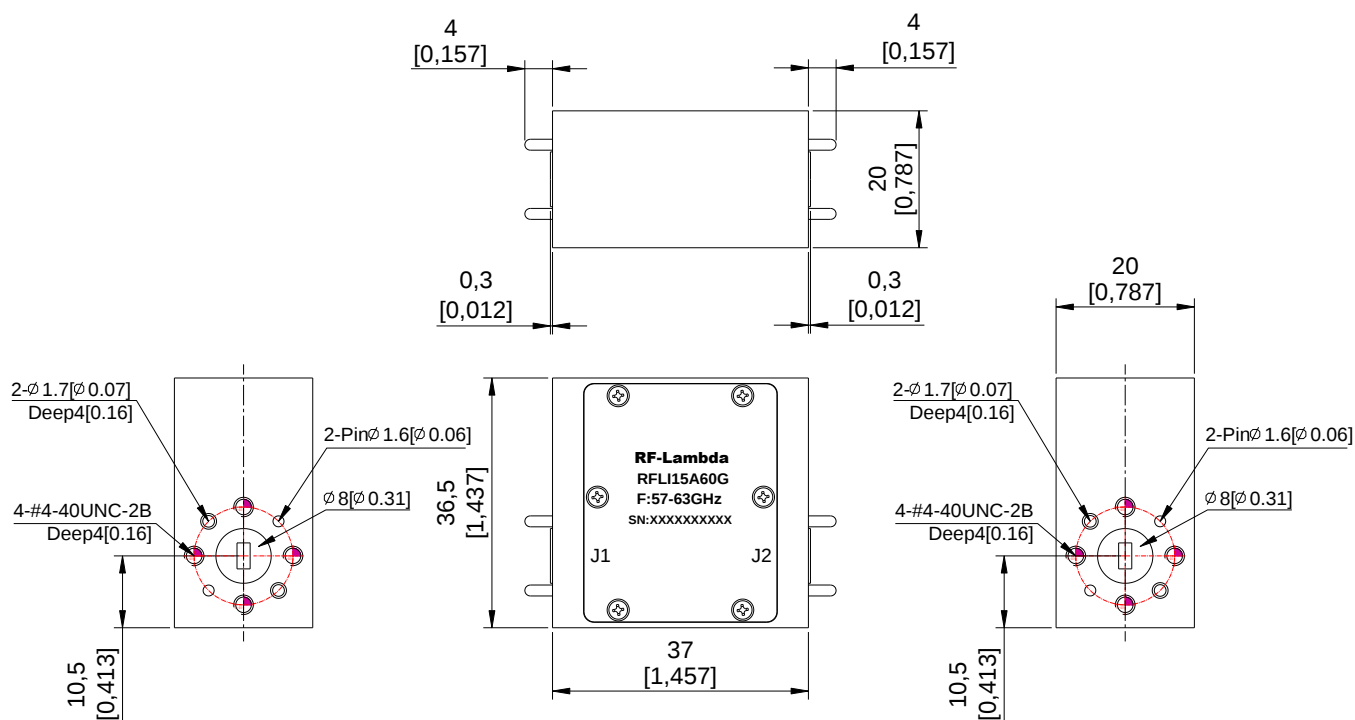
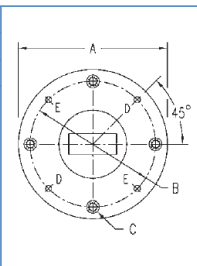
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
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.

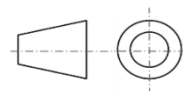
Outline Drawing

WR15	WG25	R620
UG385/U		
Dimensions	inches	mm
A	0.750	19.05
B	0.563	14.29
C Holes	4-40 UNC-2B	
D Holes	0.063	1.613
E Dowels	0.061	1.555



Notes:

1. Package Material: Aluminum alloy
2. Finish : Gold Plated
3. All dimensions are in millimeters [inches]
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] unless otherwise specified.



Additional Information

Documentation

Connector Torque Specifications

Webpage

https://www.rflambda.com/pdf/Torque_Specifications.pdf

Random Vibration Test Standard

https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf

Ordering Information

Part Number	Modification	Description
RFWI15A	Connectors UG385/U	57GHz-63GHz Waveguide Isolator

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