WR137 Waveguide High Power Isolator
5.75 – 6.67GHz

Note: The photo is for illustration only.
Please refer to the outline drawing.

Product Description

RFWC137F is a WR137 waveguide high power isolator with a frequency range of 5.75 to 6.67GHz.

The isolator has a typical isolation of 21dB. The maximum insertion loss is 0.3dB.

The isolator waveguide type is WR137.

Features

- High power handling up to 400W CW.
- 35dB Antenna Coupler
- High isolation within operational band
- Low Insertion Loss

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=+25ºC)

Parameter	Min	Typ	Max	Units
Frequency Range		5.75~6.67		GHz
Insertion Loss			0.30	dB
Isolation	21			dB
VSWR			1.20	:1
Forward Power (CW)			400	W
Reverse Power (CW)		100W (400W less than 30 seconds)		
Reverse Power Coupling		35dBc		
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Flange Type		UG1357/U CPR137G Grooved		

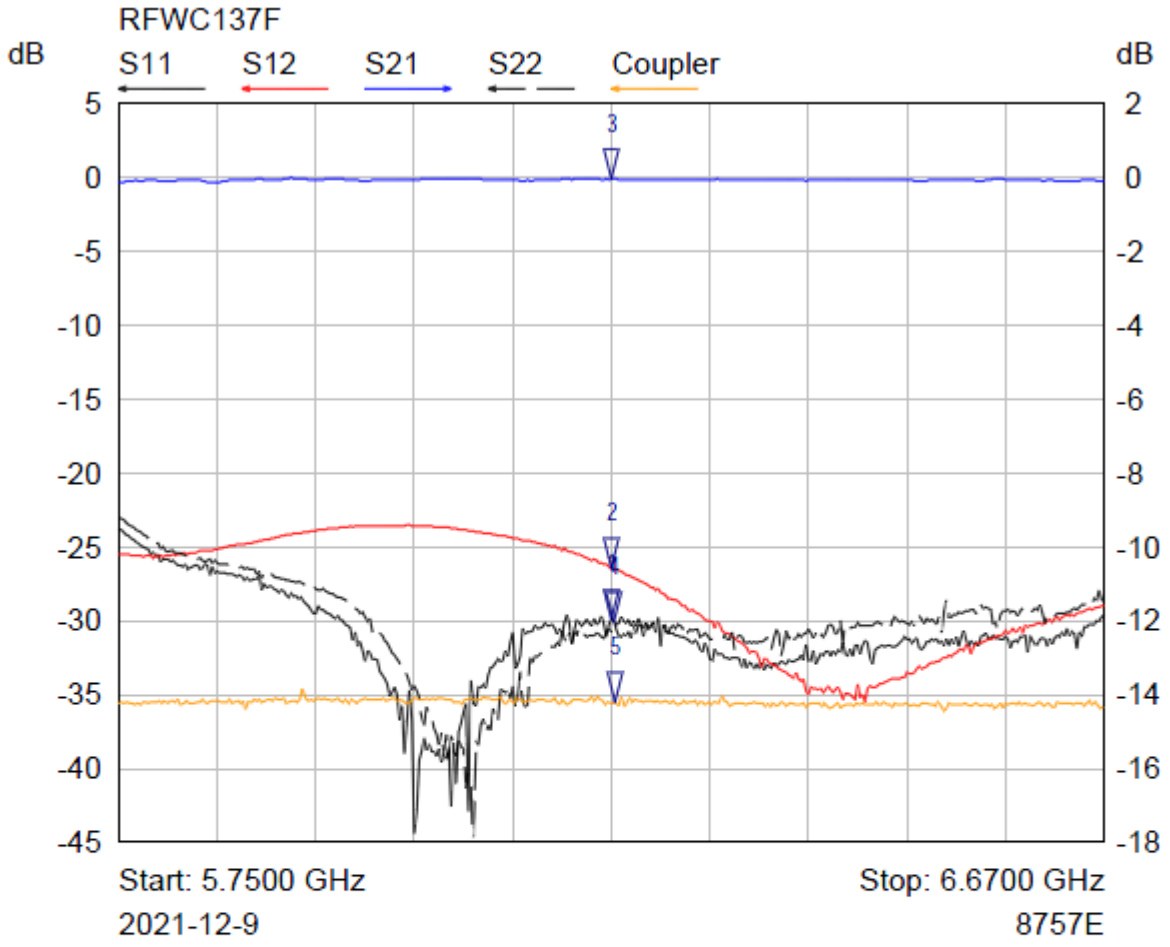
RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20ºC to +50ºC (Case Temperature)
Storage Temperature	-45ºC to +125ºC
Thermal Shock	-40ºC → +85ºC (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.

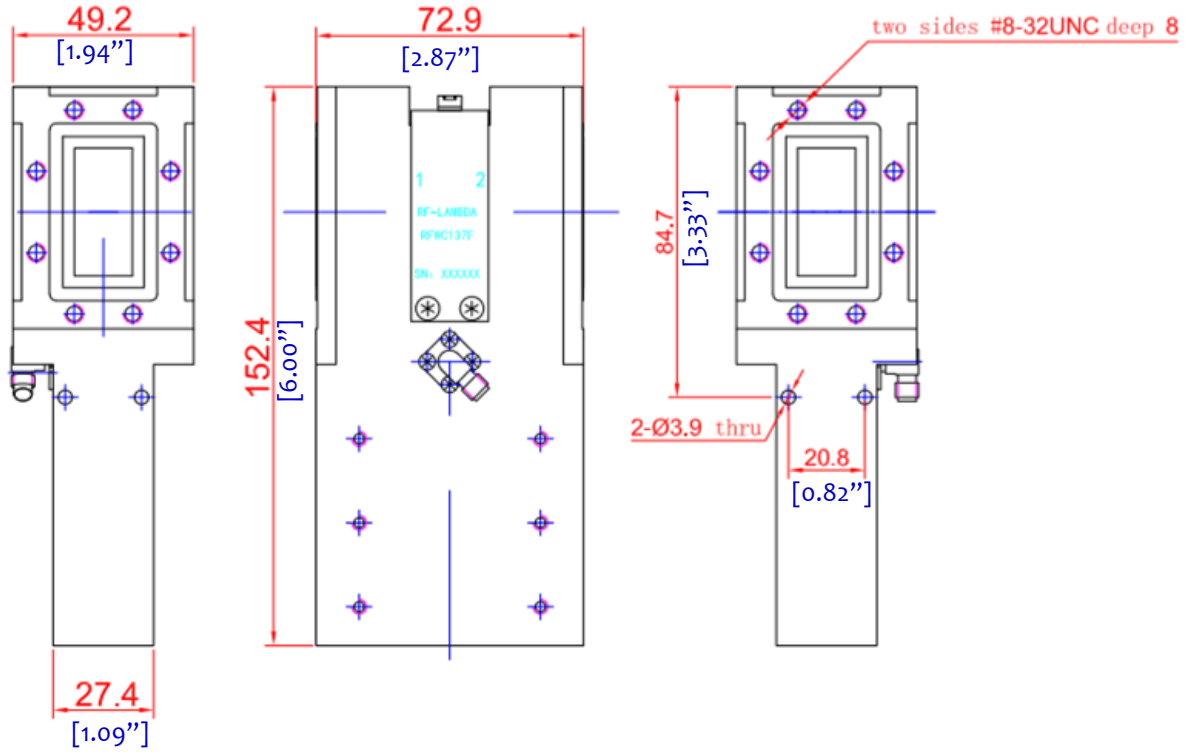
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1	S11	6.2100 GHz	-29.88 dB	
2	S12	6.2100 GHz	-26.45 dB	
3	S21	6.2100 GHz	-0.04 dB	
4	S22	6.2123 GHz	-30.09 dB	
5	Coupler	6.2100 GHz	-35.24 dB	

SN:20211111

Outline Drawing



Notes:
1. Package Material: Aluminum Alloy
2. Plating: Conductive Oxide (No Paint)
3. All dimensions are in millimeters [inches].
4. Tolerance ±0.25 [0.01].unless otherwise specified

Additional Information

Documentation	Webpage
ESD Policy	https://rflambda.com/pdf/rflambda_esd_control.pdf
Connector Torque Specifications	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
RFWC137F	Waveguide Type WR137	5.75GHz – 6.67GHz High Power Isolator

Important Notice

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