

Drop In Isolator 2.4GHz-2.5GHz



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

Product Description

RFLI-312-1-2450M is a drop in isolator with a frequency range of 2.4 to 2.5GHz.

The isolator has a typical isolation of 21dB. The maximum insertion loss is 0.4dB. The isolator has good isolation performance.

Features

- High power handling up to 10W
- 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 ($T_A=+25^{\circ}\text{C}$)

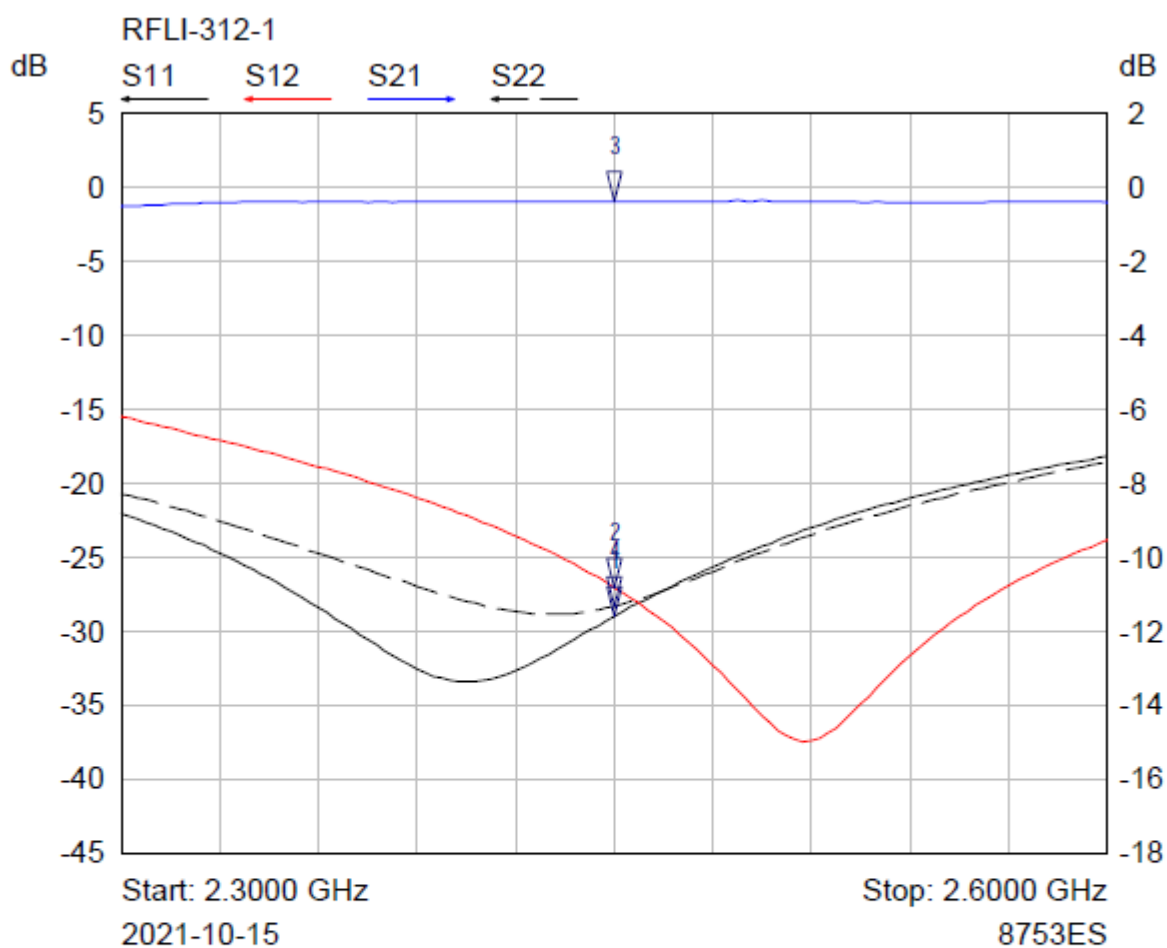
Parameter	Min.	Typ.	Max.	Units
Frequency Range		2.4 – 2.5		GHz
Insertion Loss			0.40	dB
Reverse Isolation	21			dB
VSWR			1.20	:1
Forward Power (CW)			10	W
Reverse Power (CW)			2	W
Rotation		Clockwise		
Input / Output Connectors		Drop in		
Weight		-		lbs
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-30°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +80°C
Thermal Shock	-30°C → +70°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.

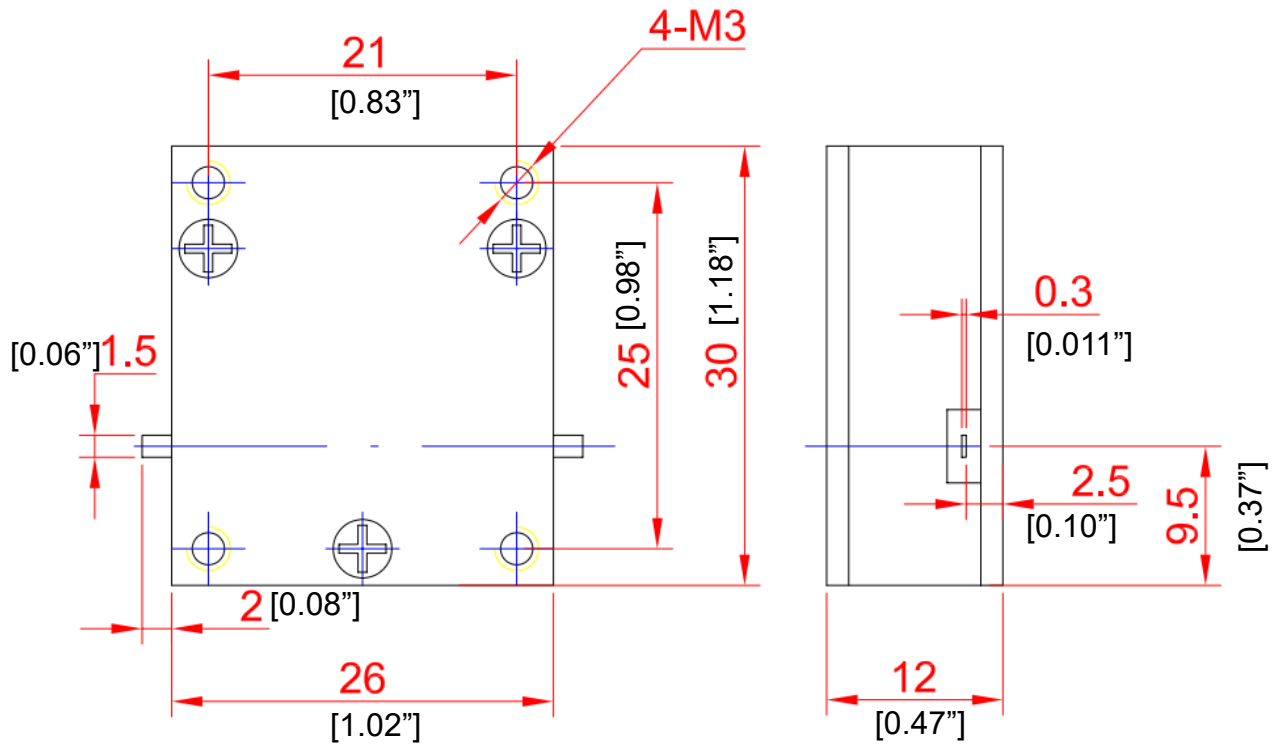
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	2.4500 GHz	-29.00 dB	
2 ▽	S12	2.4500 GHz	-27.05 dB	
3 ▽	S21	2.4500 GHz	-0.36 dB	
4 ▽	S22	2.4500 GHz	-28.31 dB	

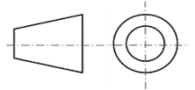
SN:211010

Outline Drawing



Notes:

1. Package Material: Aluminum alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Tolerance $\pm 0.25(0.01)$, unless otherwise specified.



Additional Information

Documentation

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

Webpage

Ordering Information

Part Number	Modification	Description
RFLI-312-1-2450M	connectors Drop in	2.4-2.5GHz Drop in Isolator

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