

High Isolation Coaxial Isolator 2 – 4GHz with 200MHz BW 2.2GHz-2.4GHz Shown



Product Description

RFLI-301-1 is a wide band coaxial isolator with a frequency range of 2 to 4GHz with a 200MHz BW 2.2 to 2.4GHz shown..

The isolator has a typical isolation of 25dB. The maximum insertion loss is 0.4dB. The isolator has good isolation performance.

The isolator input and output connectors are N-Female. SMA available as well.

Features

- Power handling up to 10W
- High isolation to 25dB
- Low Insertion Loss
- Stable performance over temperature
- 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	2-4GHz with 200MHz BW (2.2 to 2.4GHz shown)			GHz
Insertion Loss		0.35	0.40	dB
Isolation	25	26		dB
VSWR		1.15	1.20	:1
Forward Power			10	W
Reverse Power			1	W
Rotation	Clockwise (Standard) Counter Clockwise (upon request)			
Input / Output Connectors	N-Female or SMA-Female			
Weight		0.23 Max.		lbs
Impedance		50		Ω

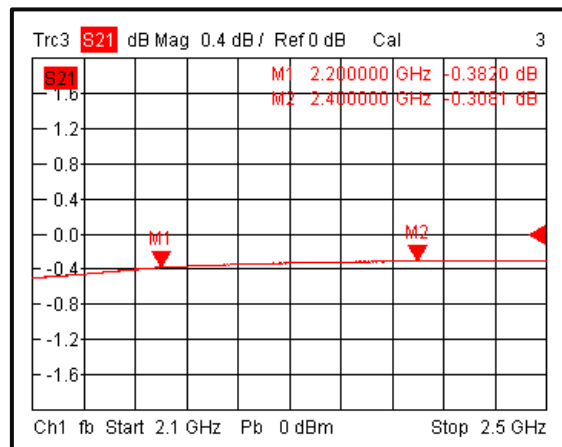
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	0°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	0°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)

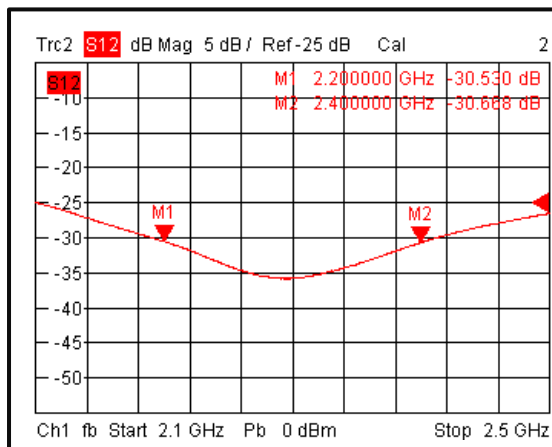
**For vibration testing details please see additional information section.

Typical Performance Plots

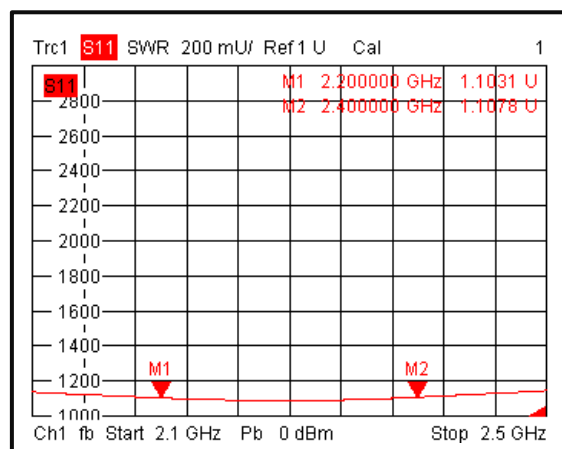
Insertion Loss



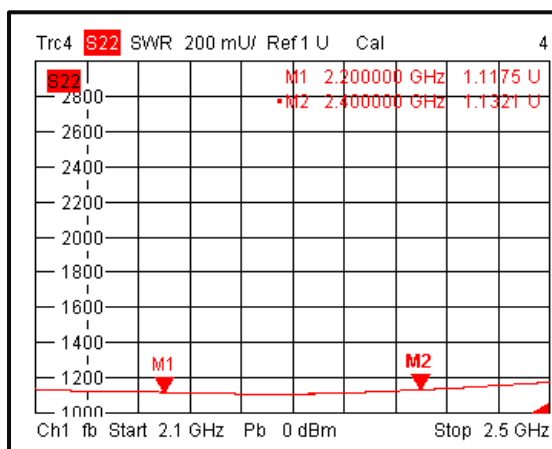
Isolation



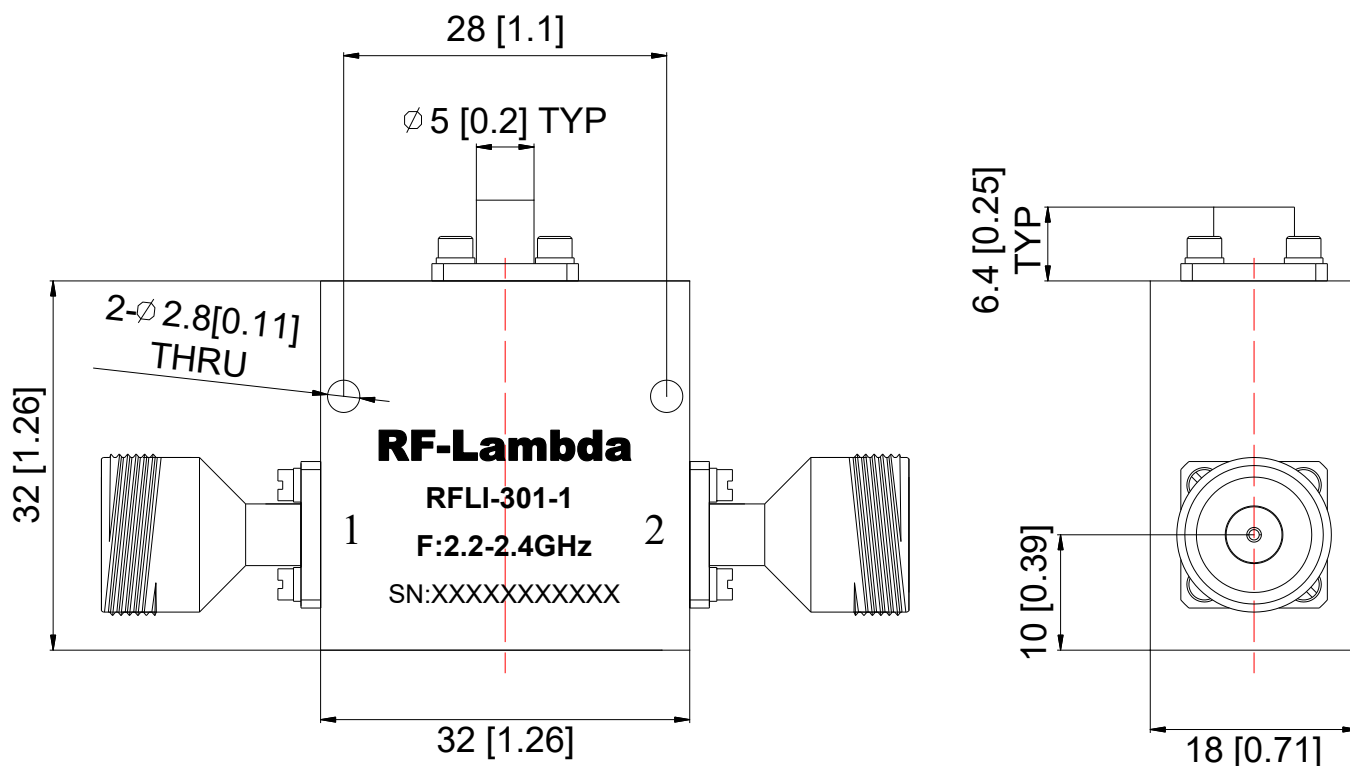
VSWR 1



VSWR 2

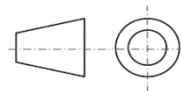


Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Outline Tolerances $\pm 0.5 [0.02]$, Mounting Hole Tolerances $\pm 0.2 [0.008]$ 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-301-1	Standard	2 to 4GHz Coaxial Isolator with 200MHz BW.

Important Notice

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