

Hermetically Sealed Wide Band Coaxial Isolator 2GHz-8GHz



Product Description

RFLI-300-2H is a hermetically sealed wide band coaxial isolator with a frequency range of 2 to 8GHz.

The isolator has a typical isolation of 15dB. The maximum insertion loss is 1.9dB.

The isolator input and output connectors are SMA-Female.

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		8	GHz
Insertion Loss		1.5	1.9	dB
Isolation	13	15		dB
VSWR		1.6	1.8	:1
Forward Power (CW)			10	W
Reverse Power (CW)			1	W
Rotation		Clockwise		
Input / Output Connectors		SMA-Female		
Weight		0.36 Max.		lbs
Impedance		50		Ω
Package		Hermetically Sealed (Laser Welded)		

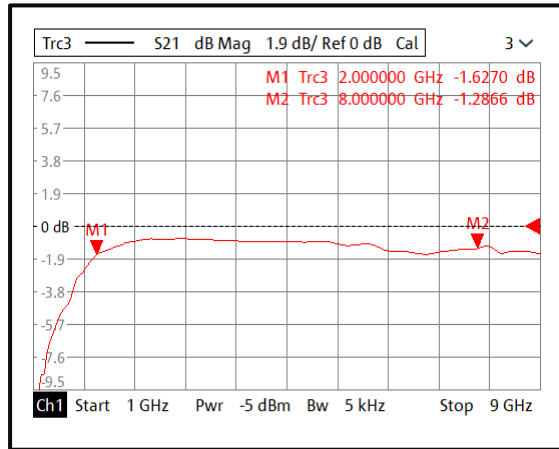
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	+10°C to +60°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-10°C → +60°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)

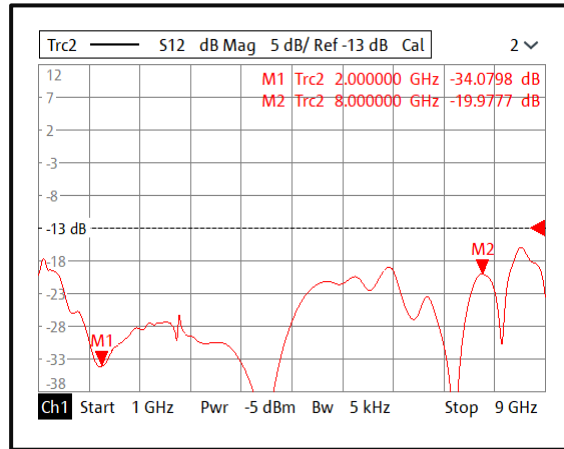
**For vibration testing details please see additional information section.

Typical Performance Plots

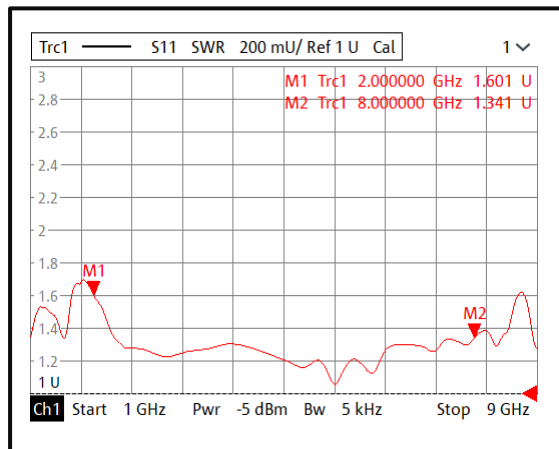
Insertion Loss



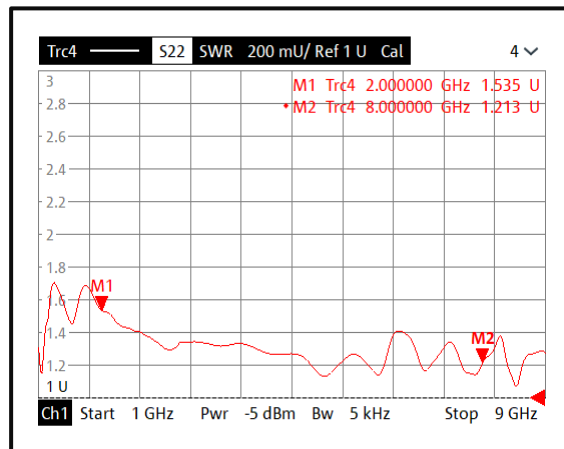
Isolation



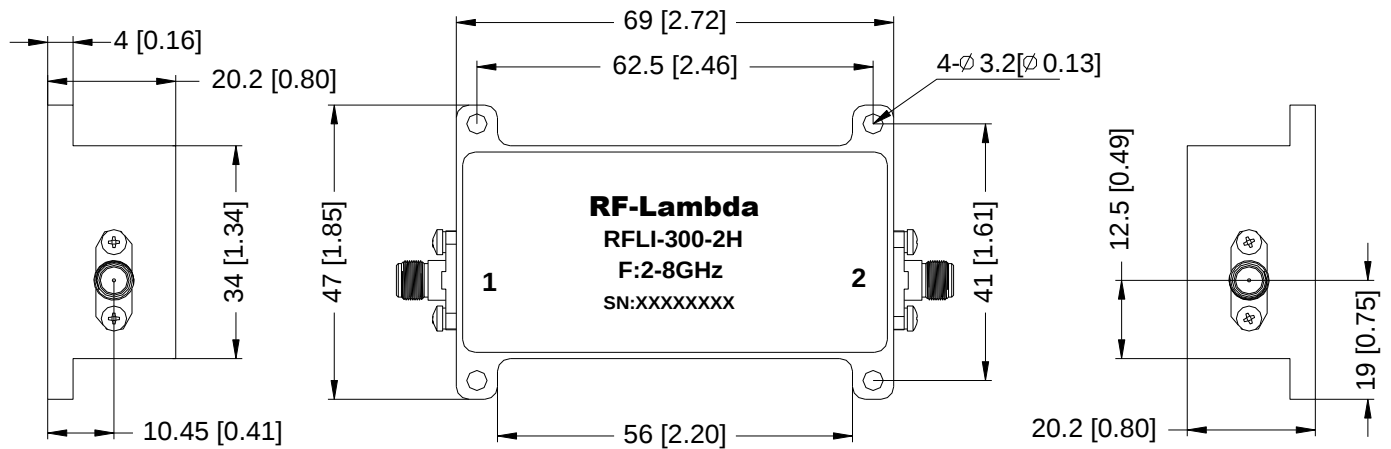
VSWR 1



VSWR2

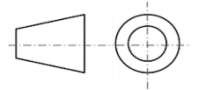


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: Blue Paint
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



Additional Information

Documentation

Connector Torque Specifications

Random Vibration Test Standard

Webpage

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

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

Ordering Information

Part Number	Modification	Description
RFLI-300-2H	connectors SMA-Female	2GHz-8GHz Hermetically Sealed Coaxial Isolator

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