

Ultra Wide Band Coaxial Isolator 1.5GHz-2.5GHz



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

Product Description

RFLI301G15G25 is an ultra wide band coaxial isolator with a frequency range of 1.5 to 2.5GHz.

The isolator has a typical isolation of 18dB. The maximum insertion loss is 0.5dB.

The isolator input and output connectors are SMA-Female.

Features

- High power handling up to 50W
- 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 ($T_A=+25^{\circ}\text{C}$)

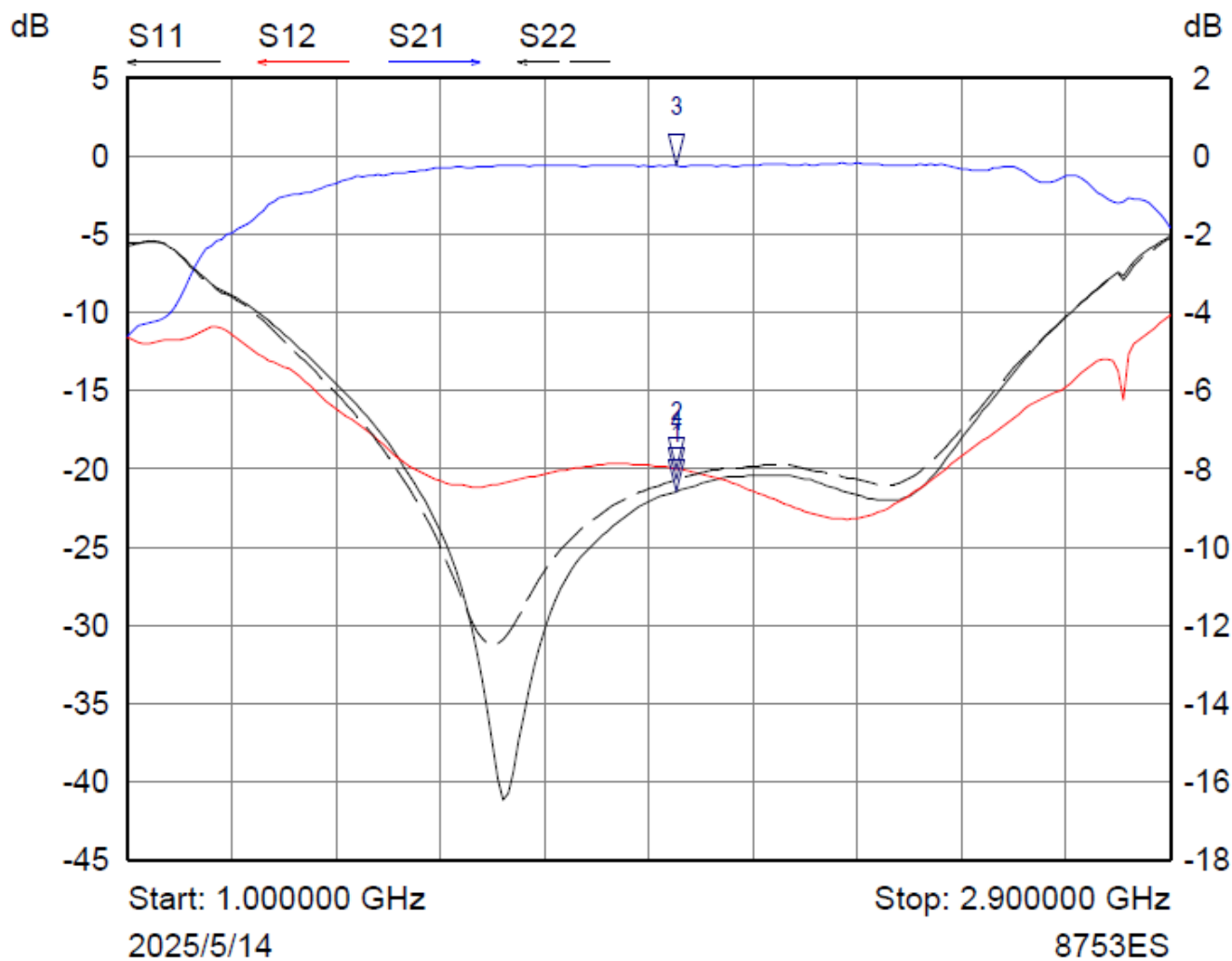
Parameter	Min.	Typ.	Max.	Units
Frequency Range		1.5–2.5		GHz
Insertion Loss			0.50	dB
Isolation	18			dB
VSWR			1.29	:1
Forward Power (CW)			50	W
Reverse Power (CW)			5	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		SMA-Female(Input) – SMA-Female(Output)		
Weight		0.42 Max.		lbs
Impedance		50		Ω

Environmental Specifications and Test Standards

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

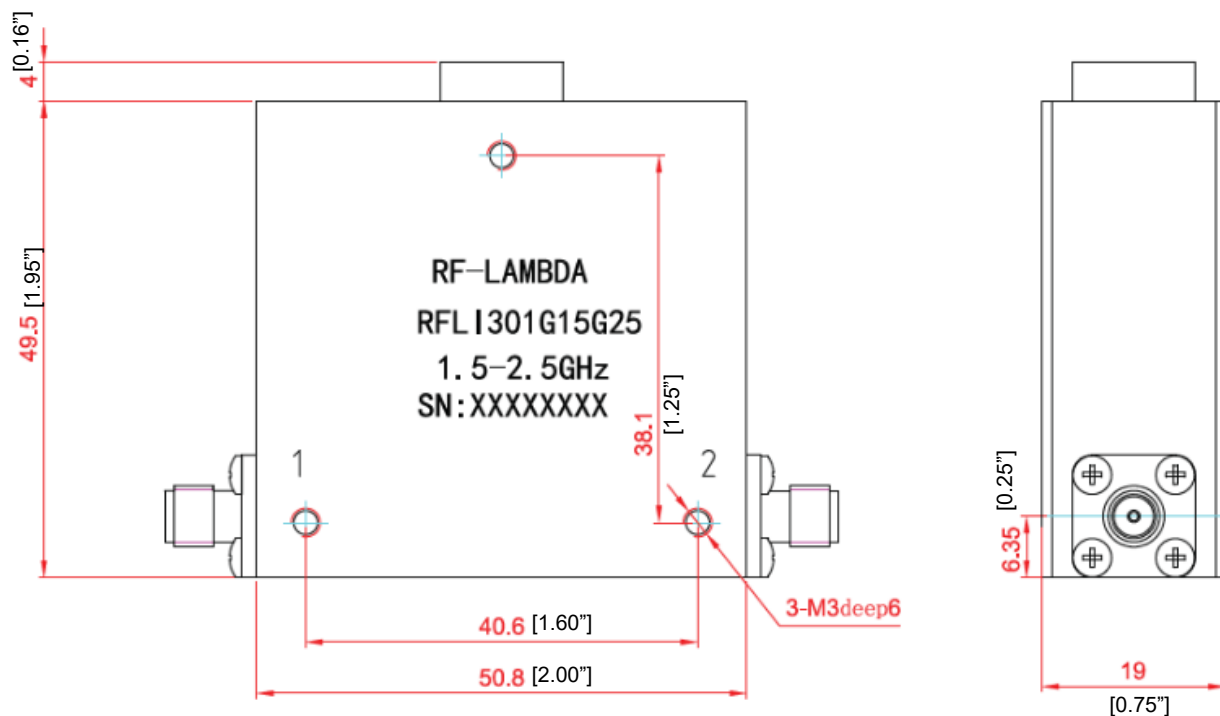
**For vibration testing details please see additional information section.

Typical Performance Plots



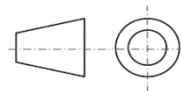
Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	2.000000 GHz	-21.4493 dB	
2 ▽	S12	2.000000 GHz	-19.9839 dB	
3 ▽	S21	2.000000 GHz	-0.2380 dB	
4 ▽	S22	2.000000 GHz	-20.6921 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum alloy or Copper
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Tolerance $\pm 0.25(0.01)$, unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors



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
RFLI301G15G25	Standard	1.5-2.5GHz Coaxial Isolator

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