Wide Band Dual Junction Isolator
2 - 8GHz

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

Product Description

RFLI-300-2 is a wide band dual junction isolator with a frequency range of 2 to 8GHz.

The isolator has a typical isolation of 15dB. The maximum insertion loss is 1.5dB.The isolator has good isolation performance.

The isolators connectors are SMA-Female and N-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=+25ºC)

Parameter	Min	Typ	Max	Units
Frequency Range		2-8		GHz
Insertion Loss			1.5	dB
Isolation	15			dB
VSWR			1.6	:1
Forward Power (CW)			10	W
Reverse Power (CW)			2	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Connectors		RFLI-300-2S (SMA-Female) RFLI-300-2N (N-Female)		
Impedance		50		Ω

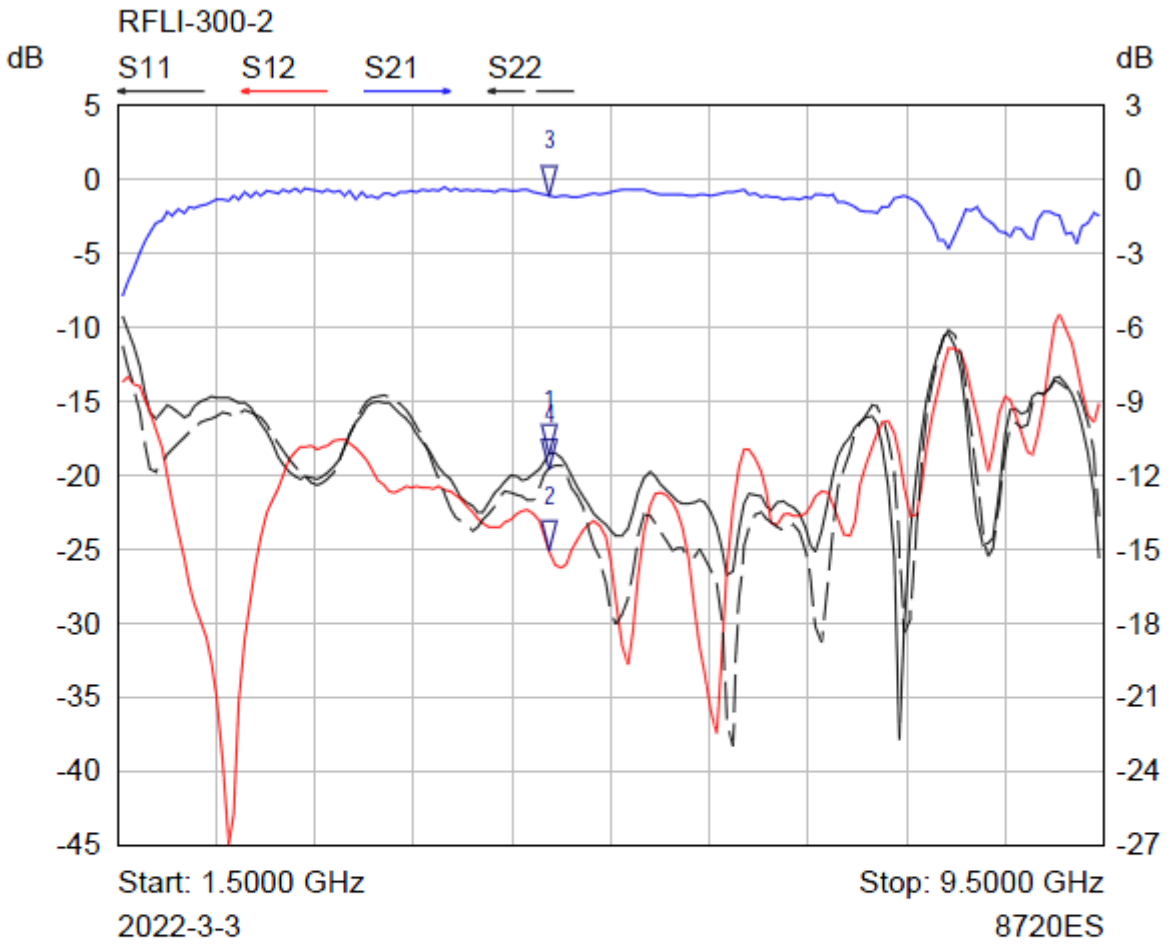
RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	+10ºC to +40ºC (Case Temperature)
Storage Temperature	-40ºC to +85ºC
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

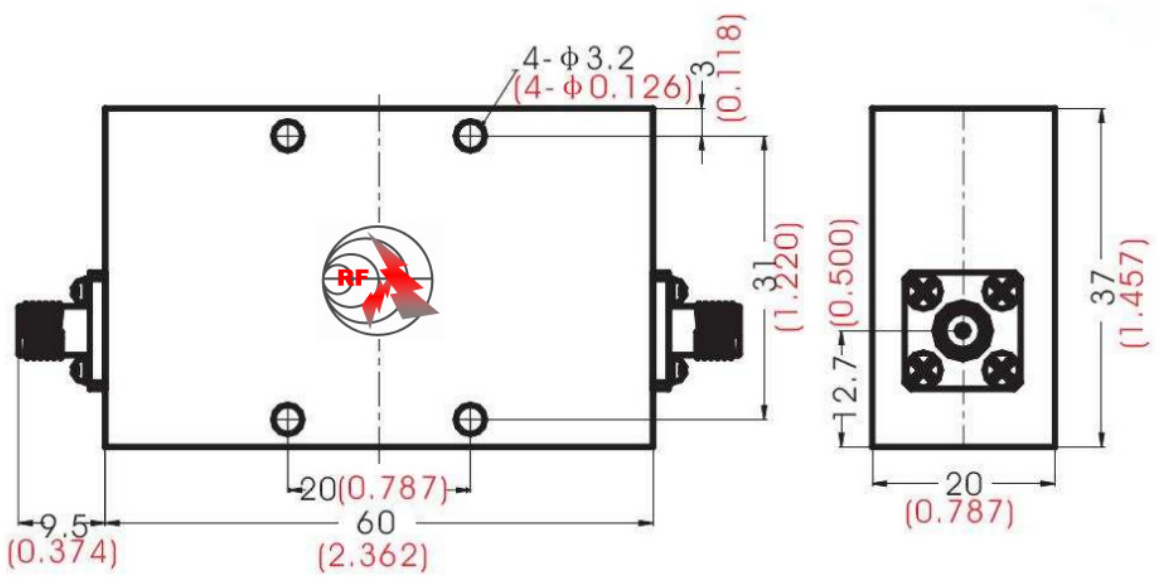


Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	5.0000 GHz	-18.59 dB	
2 ▽	S12	5.0000 GHz	-25.01 dB	
3 ▽	S21	5.0000 GHz	-0.66 dB	
4 ▽	S22	5.0000 GHz	-19.54 dB	

SN:20220310

Outline Drawing

SMA Version Shown



Notes:
1. Package Material: Aluminum Alloy
2. Finish : Conductive Oxide
3. All dimensions are in millimeters [inches]
4. Tolerance ±0.25(0.01).unless otherwise specified.

Additional Information

Documentation	Webpage
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
RFLI-300-2S	Connectors SMA-Female	2GHz-8GHz Dual Junction Isolator
RFLI-300-2N	Connectors N-Female	2GHz-8GHz Dual Junction Isolator

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