

Wide Band Dual Junction Isolator 2GHz-6GHz



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

Features

- High power handling up to 10W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

Product Description

RFLI-300-1G is a wide band dual junction isolator with a frequency range of 2 to 6GHz.

The Isolator has a typical isolation of 15dB. The maximum insertion loss is 1.5dB.

The operating temperature of this product is from -40 °C to +70°C

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

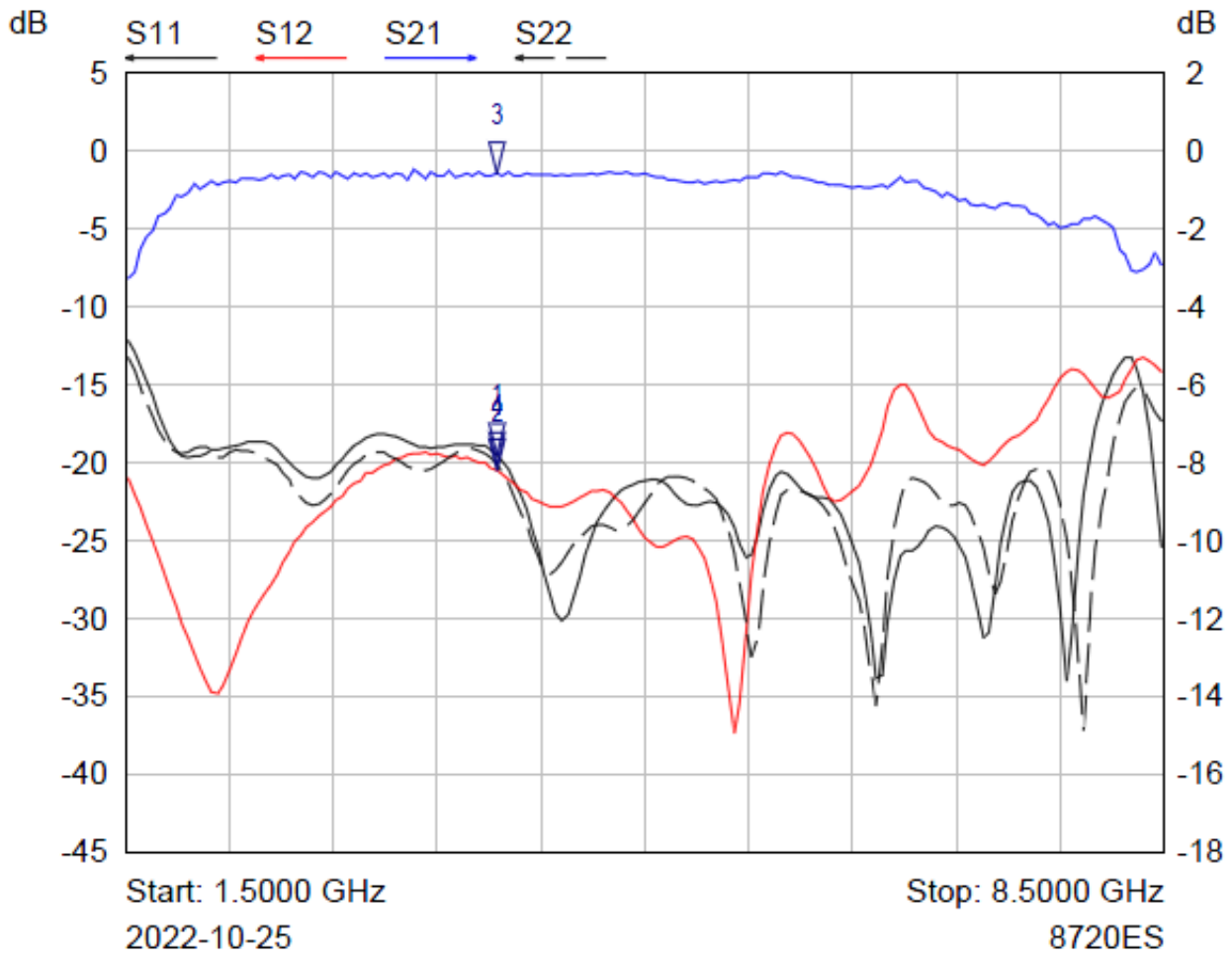
Electrical Specifications(T_A=25°C)

Parameter	Min	Type	Max	Units
Frequency Range		2 - 6		GHz
Insertion Loss			1.5	dB
Isolation	15			dB
VSWR			1.6	:1
Forward Power (CW)			10	W
Reverse Power (CW)			1	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input /Output Connectors		SMA-Female		
Impedance		50		Ω

Environmental Specifications and Test Standards

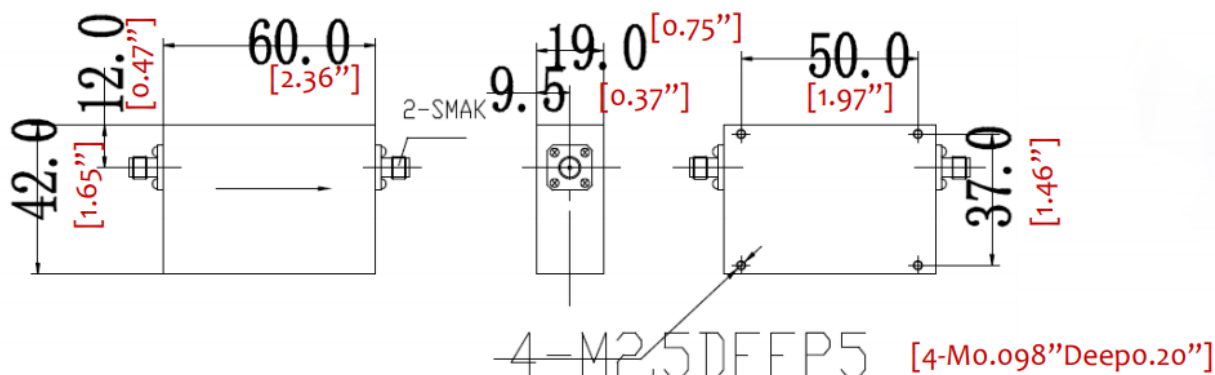
Parameter	Description
Operational Temperature	-40°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +100°C
Thermal Shock	-40°C → +70°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	4.0000 GHz	-19.48 dB	
2 ▽	S12	4.0000 GHz	-20.48 dB	
3 ▽	S21	4.0000 GHz	-0.57 dB	
4 ▽	S22	4.0000 GHz	-20.06 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Conductive Oxide
3. All dimensions are in millimeters [inches].

Additional Information

Documentation	Webpage
ESD Policy	https://rflambda.com/pdf/rflambda_esd_control.pdf
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-300-1G	standard	2GHz-6GHz Wide Band Dual Junction Isolator

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