

High Power Drop in Isolator 1.2GHz-1.4GHz



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

Product Description

RFLI-121-1 is a high power drop in isolator with a frequency range of 1.2 to 1.4GHz.

The isolator has a minimum isolation of 20dB. The maximum insertion loss is 0.3dB.

The isolator input and output connectors are Drop-in.

Features

- High power handling up to 150W
- 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 ($T_A=+25^{\circ}\text{C}$)

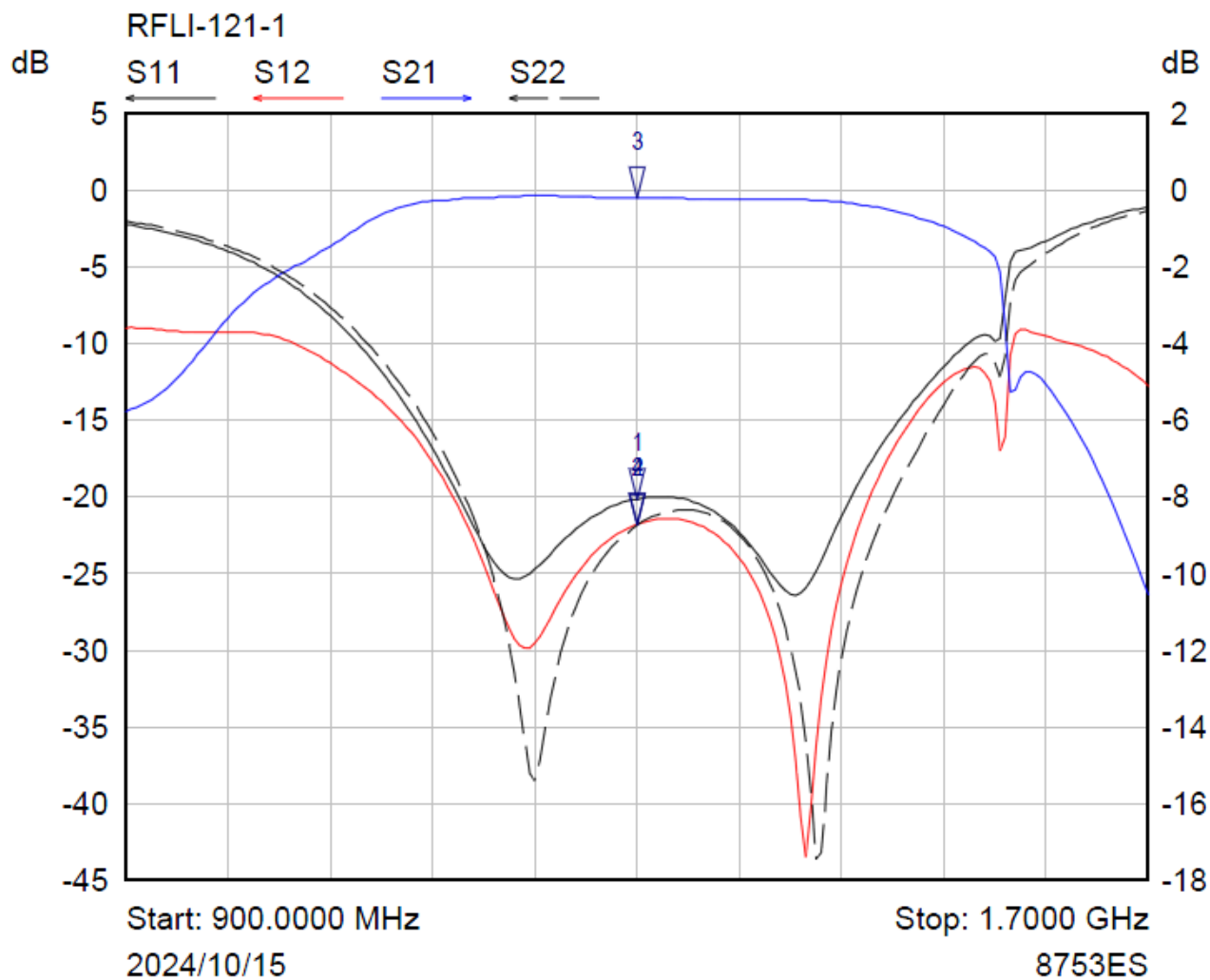
Parameter	Min.	Typ.	Max.	Units
Frequency Range		1.2-1.4		GHz
Insertion Loss			0.30	dB
Isolation	20			dB
VSWR			1.25	:1
Power Handling			150	W
Pulse Power(100us /10% Duty Cycle)			1500	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Connectors		Drop-in		
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-20°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)

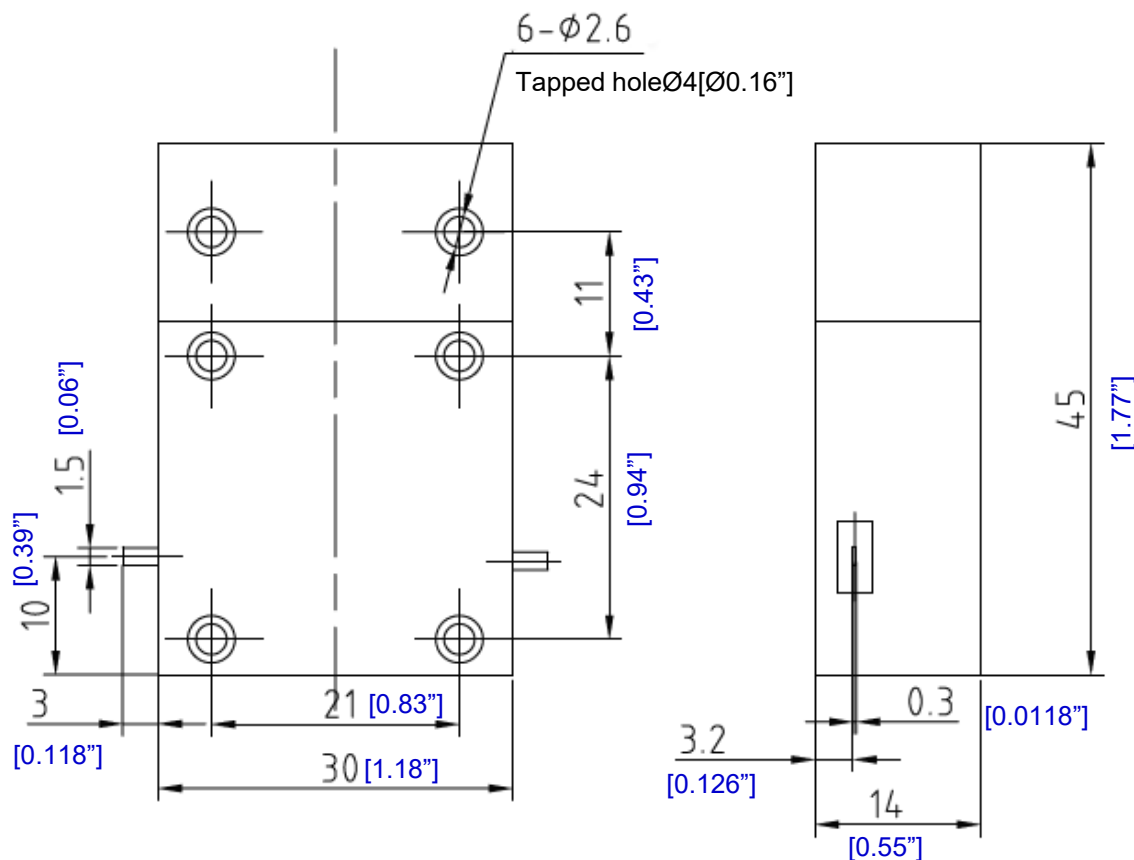
*For vibration testing details please see additional information section.

Typical Performance Plots



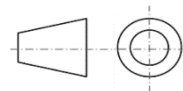
Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	1.3000 GHz	-20.14 dB	
2 ▾	S12	1.3000 GHz	-21.79 dB	
3 ▾	S21	1.3000 GHz	-0.19 dB	
4 ▾	S22	1.3000 GHz	-21.83 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches].
4. Standard torque wrench must be used to secure RF connectors.



Additional Information

Documentation

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

Webpage

Ordering Information

Part Number	Modification	Description
RFLI-121-1	Connectors Drop-in	1.2-1.4GHz High Power Drop in Isolator

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