Ultra Wide Band Coaxial Isolator
6GHz-10GHz

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

Product Description

RFLI-502-4 is an ultra wide band coaxial isolator with a frequency range of 6 to 10GHz.

The isolator has a typical isolation of 18dB. The maximum insertion loss is 0.6dB. The isolator has good isolation performance.

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

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		6– 10		GHz
Insertion Loss		0.55	0.60	dB
Isolation	17	18		dB
VSWR		1.30	1.33	:1
Forward Power (CW)			10	W
Reverse Power (CW)			1	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		SMA-Female(Input)-SMA-Female(Output)		
Weight		0.06 Max.		lbs
Impedance		50		Ω

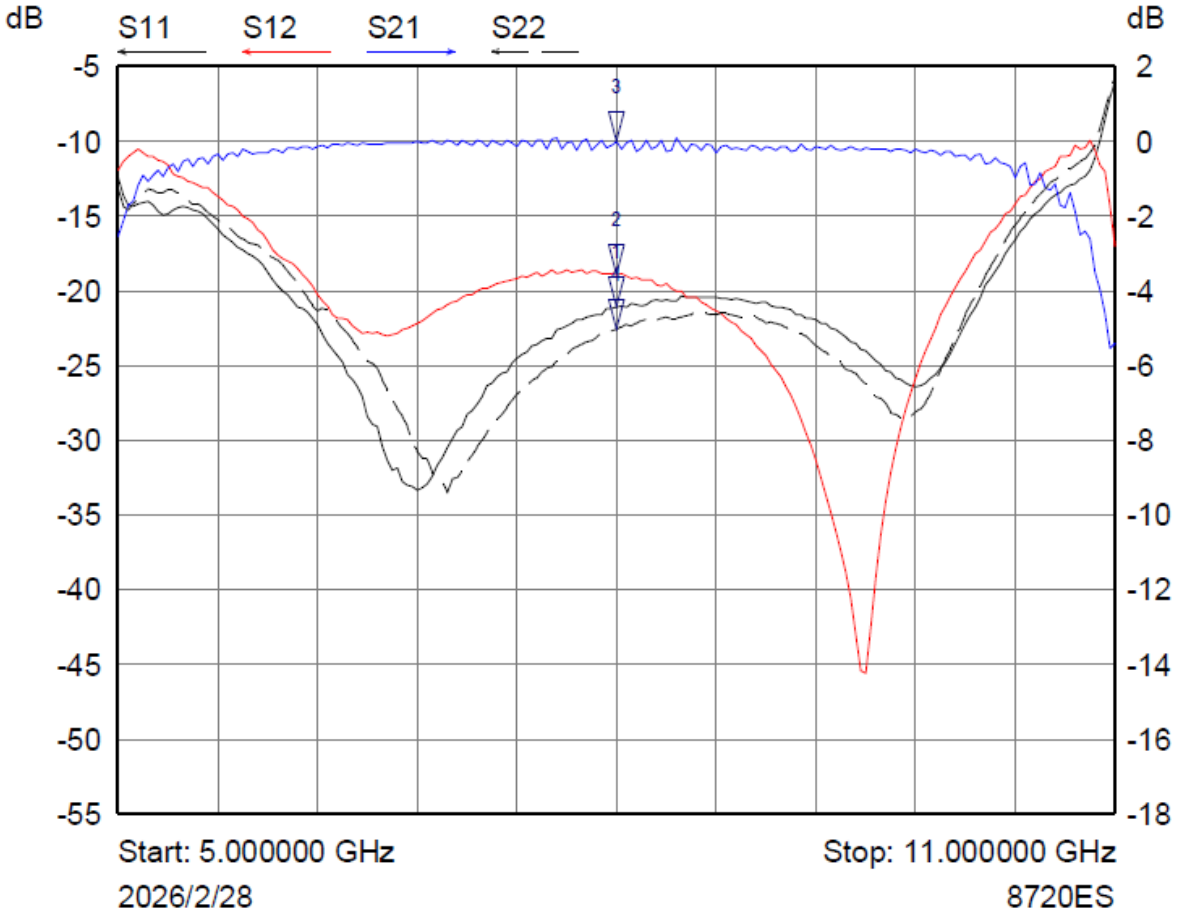
RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com

Environmental Specifications and Test Standards

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

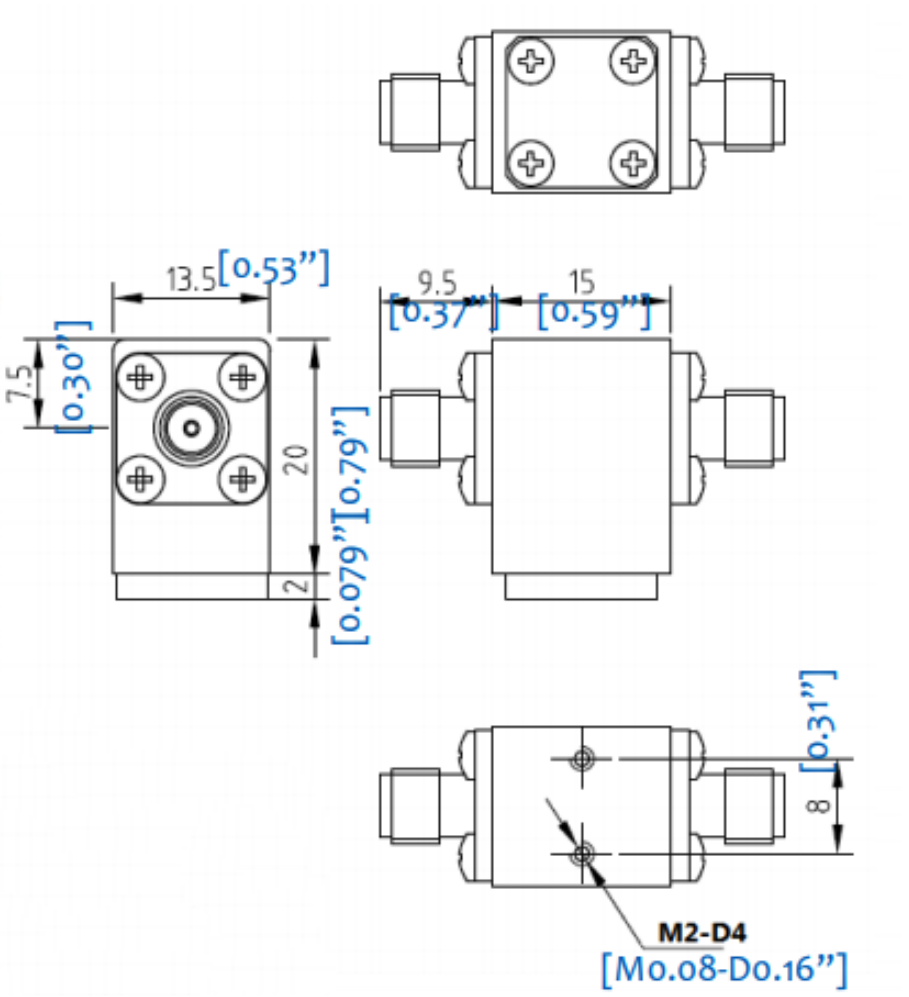
**For vibration testing details please see additional information section.

Typical Performance Plots

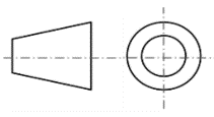


Mkr	Trace	X-Axis	Value	Notes
1	S11	8.000000 GHz	-21.0739 dB	
2	S12	8.000000 GHz	-18.8957 dB	
3	S21	8.000000 GHz	-0.0140 dB	
4	S22	8.000000 GHz	-22.5897 dB	

Outline Drawing



Notes:
1. Package Material: Aluminum Alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Outline Tolerances ±0.5 [0.02], Mounting Hole Tolerances ±0.2 [0.008] 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-502-4	Standard	6GHz-10GHz Coaxial Isolator

Important Notice

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