

## Coaxial Isolator 3GHz-4GHz



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

### Product Description

RFLI-301-3-3500M is a coaxial isolator with a frequency range of 3 to 4GHz.

The isolator has a minimum isolation of 20dB. The maximum insertion loss is 0.4dB. The isolator has good isolation performance.

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<sub>A</sub>=+25°C)

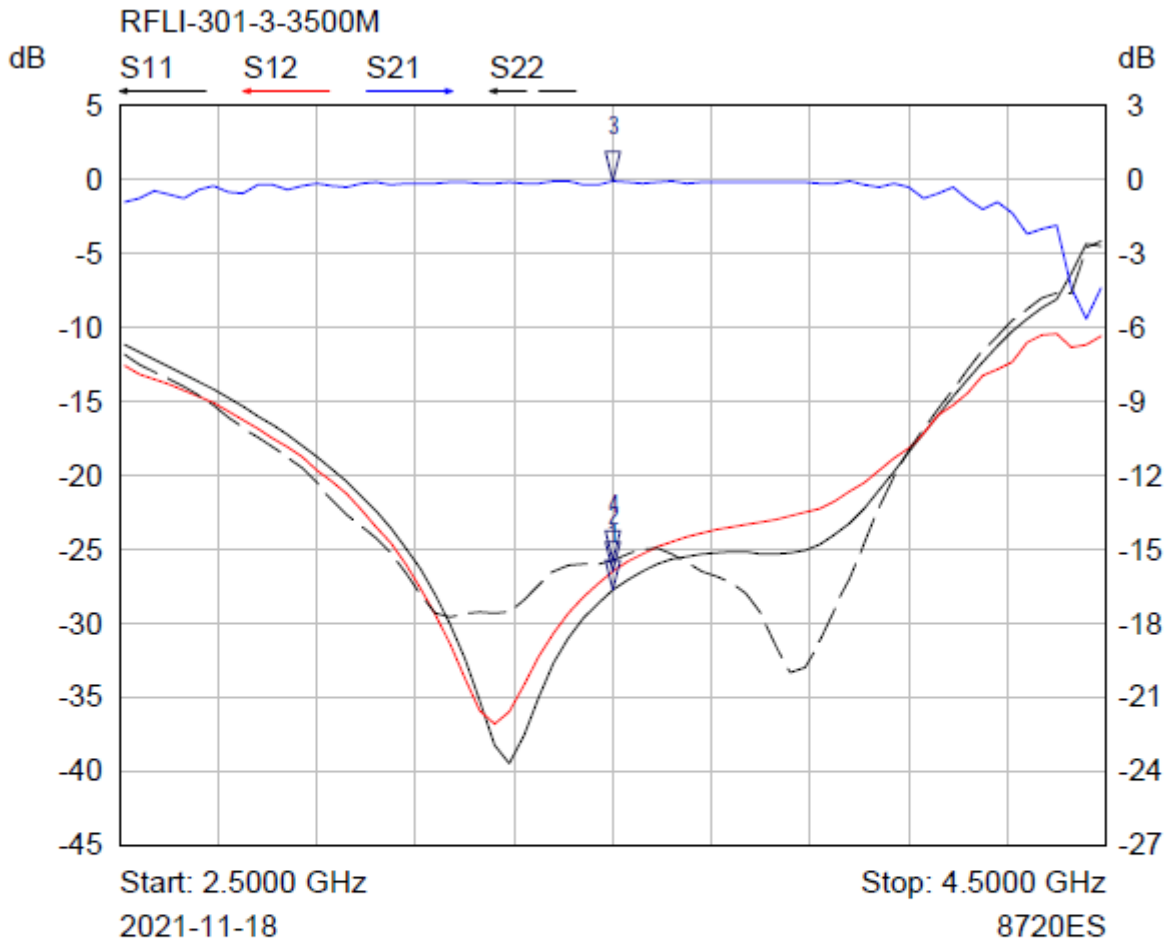
Parameter	Min	Typ	Max	Units
Frequency Range		3 - 4		GHz
Insertion Loss			0.40	dB
Reverse Isolation	20			dB
VSWR			1.20	:1
Forward Power (CW)			50	W
Reverse Power (CW)			5	W
Rotation		Clockwise		
Input / Output Connectors		SMA-Female		
Weight		-		lbs
Impedance		50		Ω

**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-20°C to +50°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-20°C → +50°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.

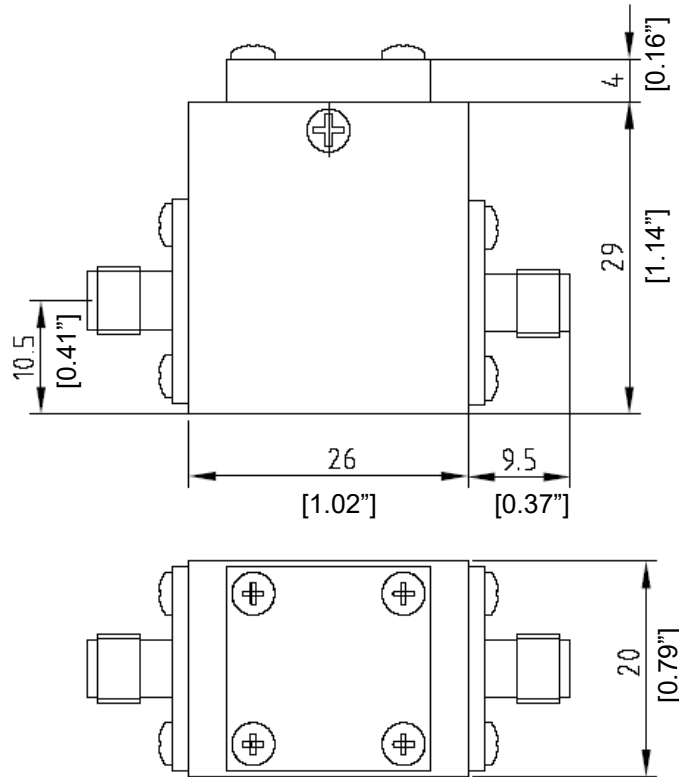
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	3.5000 GHz	-27.77 dB	
2 ▾	S12	3.5000 GHz	-26.53 dB	
3 ▾	S21	3.5000 GHz	-0.05 dB	
4 ▾	S22	3.5000 GHz	-25.71 dB	

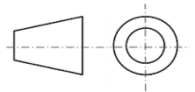
SN: 211102

Typical Performance Plots



Notes:

1. Package Material: Aluminum alloy
2. Finish : Plated
3. All dimensions are in millimeters [inches]
4. Tolerance  $\pm 0.25(0.01)$ , unless otherwise specified.



Additional Information

Documentation	Webpage
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RFLI-301-3-3500M	connectors SMA-Female	3GHz-4GHz Coaxial Isolator

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