

## Wide Band Coaxial Isolator 8GHz-18GHz



### Product Description

RFLI601G08G18 is a wide band coaxial isolator with a frequency range of 8 to 18GHz.

The isolator has a typical isolation of 15dB. The maximum insertion loss is 1.2dB.

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
- 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		8 - 18		GHz
Insertion Loss		1.0	1.2	dB
Isolation	14	15		dB
VSWR		1.45	1.55	:1
Forward Power (CW)			10	W
Reverse Power (CW)			1	W
Rotation	Clockwise			
Input / Output Connectors	SMA-Female(Input)-SMA-Female(Output)			
Weight		0.033 Max.		lbs
Impedance		50		$\Omega$

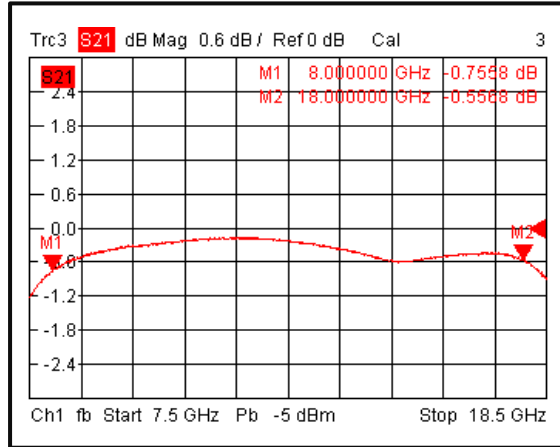
**Environmental Specifications and Test Standards**

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)

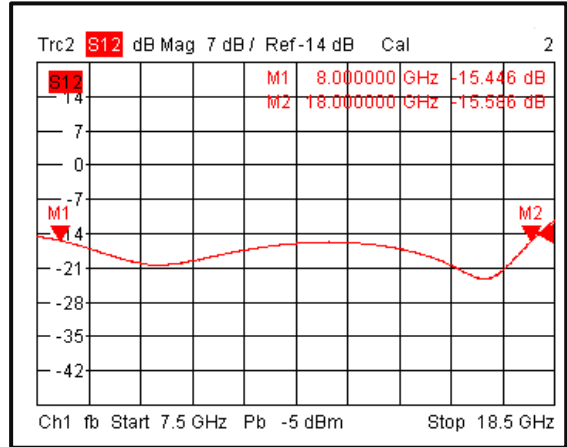
\*\*For vibration testing details please see additional information section.

Typical Performance Plots

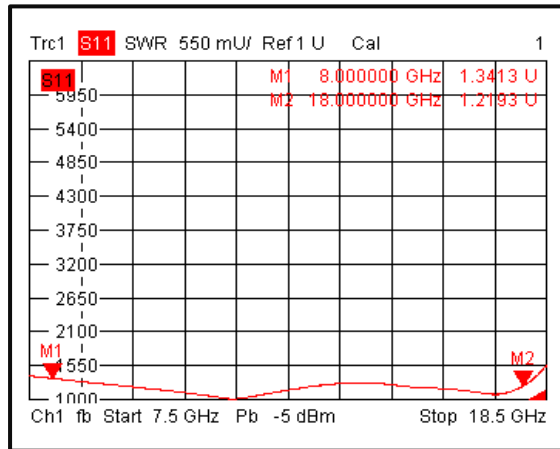
Insertion Loss



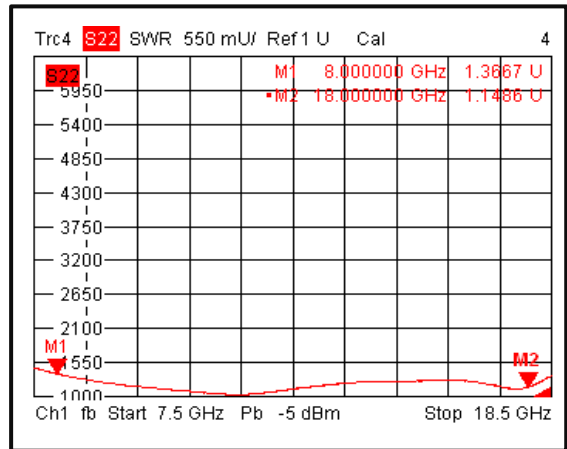
Isolation



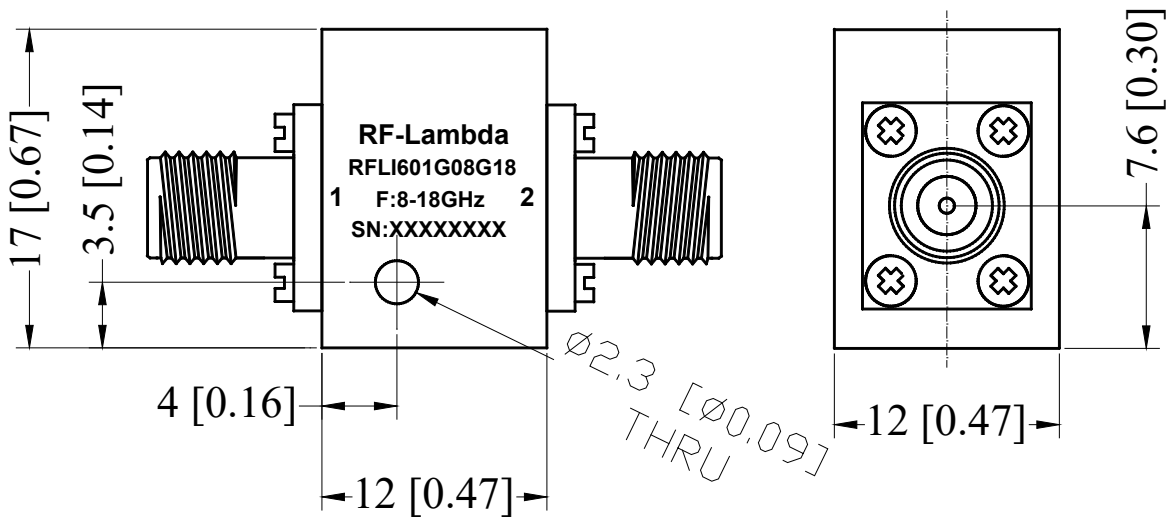
VSWR 1



VSWR2

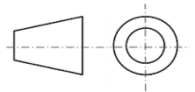


**Outline Drawing**



**Notes:**

1. Package Material: Aluminum alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Outline Tolerances  $\pm 0.5$  [0.02], Mounting Hole Tolerances  $\pm 0.2$  [0.008] 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
RFLI601G08G18	Standard	8-18GHz Coaxial Isolator

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