Wide Band Coaxial Isolator
8GHz-12GHz

Product Description

RFLI601G08G12 is an ultra wide band coaxial isolator with a frequency range of 8 to 12GHz.

The isolator has a typical isolation of 21dB. The maximum insertion loss is 0.5dB.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
- 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=+25ºC)

Parameter	Min.	Typ.	Max.	Units
Frequency Range		8-12		GHz
Insertion Loss		0.40	0.50	dB
Isolation	20	21		dB
VSWR		1.30	1.35	:1
Forward Power (CW)			10	W
Reverse Power (CW)			1	W
Rotation		Clockwise		
Input / Output Connectors		SMA-Female		
Weight		0.05 Max.		lbs
Impedance		50		Ω

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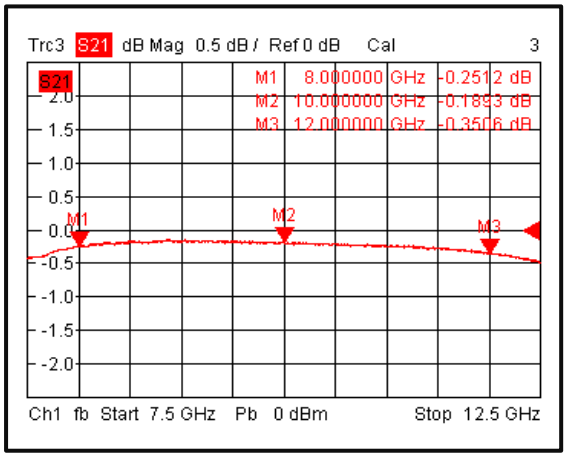
Environmental Specifications and Test Standards

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)

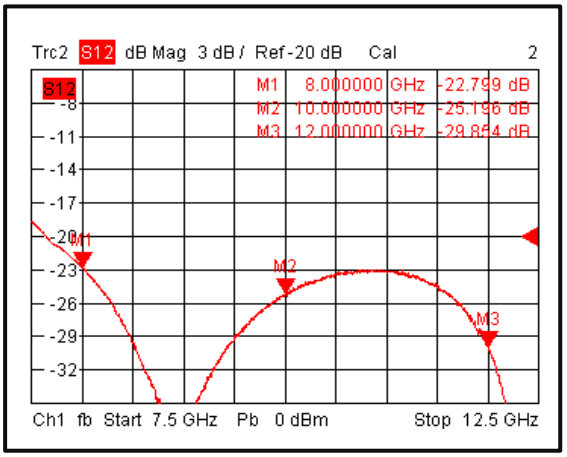
**For vibration testing details please see additional information section.

Typical Performance Plots

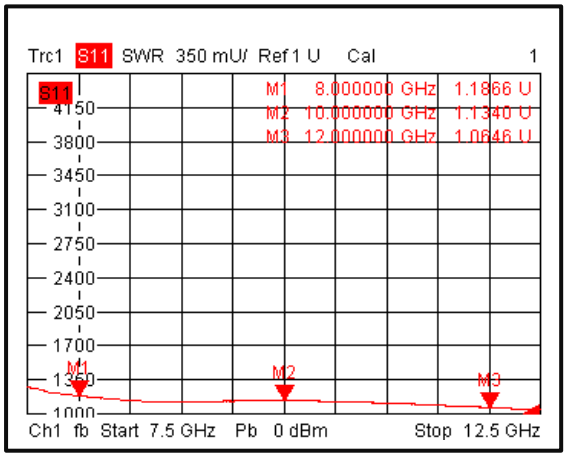
Insertion Loss



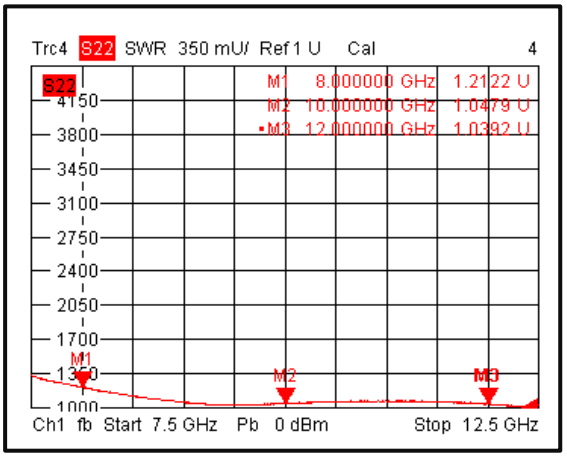
Isolation



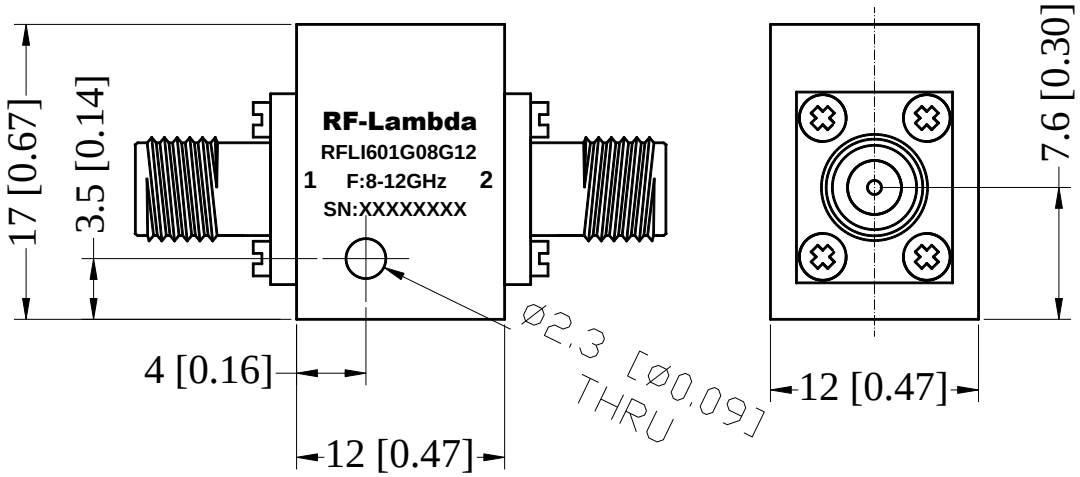
VSWR 1



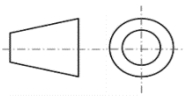
VSWR2



Outline Drawing



Notes:
1. Package Material: Aluminum alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Tolerance ±0.25(0.01).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
RFLI601G08G12	connectors SMA-Female	8GHz-12GHz Coaxial Isolator
RFLI601G08G12W	connectors 2.4mm-Female	8GHz-12GHz Coaxial Isolator

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