

High isolation Dual Junction Coaxial Isolator 2.95GHz-3.05GHz



Product Description

RFLI-308-1-3G is a wide band dual junction coaxial isolator with a frequency range of 2.95 to 3.05GHz.

The isolator has a typical isolation of 50dB. The maximum insertion loss is 0.6dB.

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°C)

Parameter	Min.	Typ.	Max.	Units
Center Frequency		3		GHz
Bandwidth		100		MHz
Frequency Range	2.95		3.05	GHz
Insertion Loss		0.5	0.6	dB
Isolation	46	50		dB
VSWR		1.15	1.2	:1
Forward Power (CW)			10	W
Reverse Power (CW)			2	W
Rotation	Clockwise			
Input / Output Connectors	SMA-Female(Input)-SMA-Female(Output)			
Weight		0.2 Max.		lbs
Impedance		50		Ω

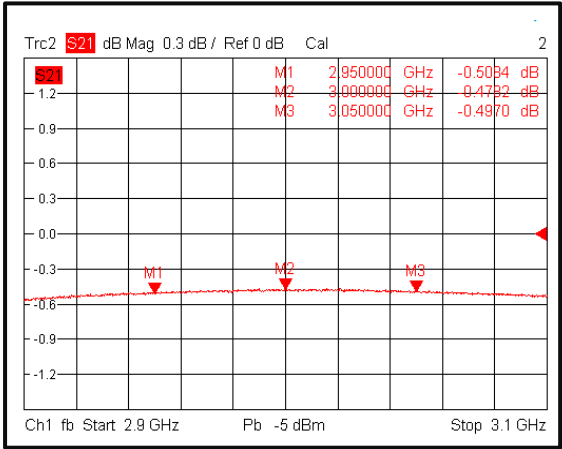
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	0°C to +60°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	0°C → +60°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)

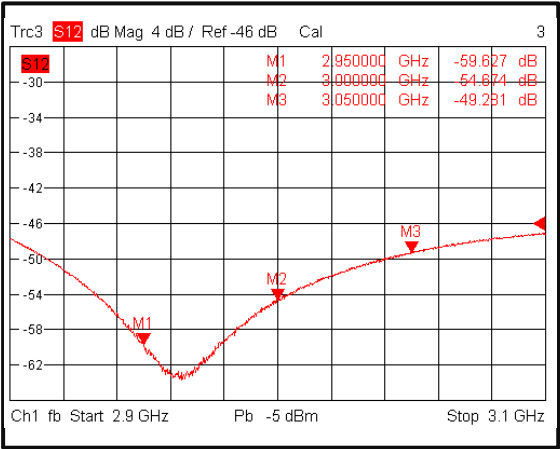
**For vibration testing details please see additional information section.

Typical Performance Plots

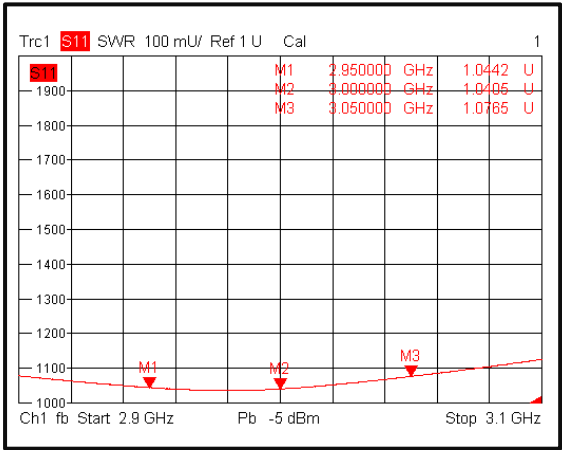
Insertion Loss



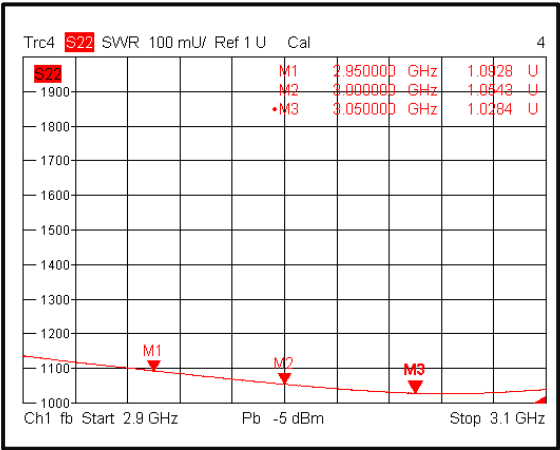
Isolation



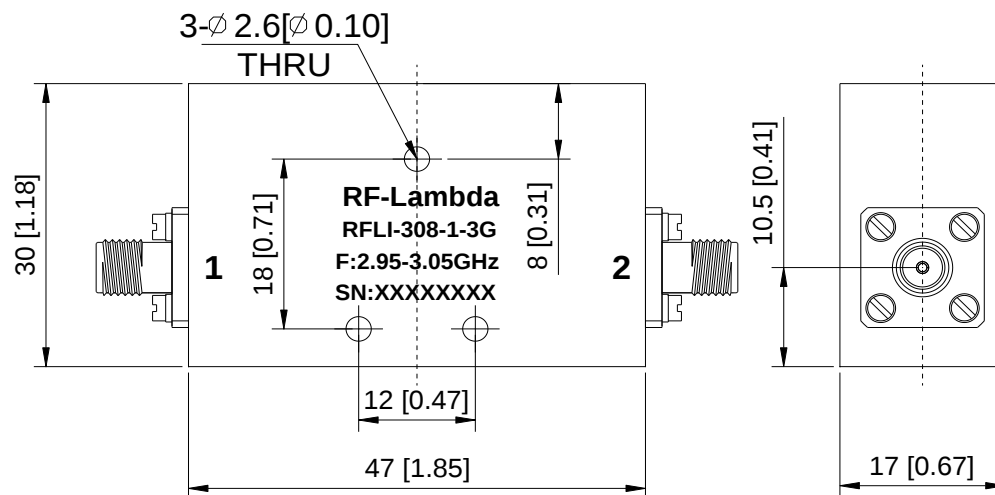
VSWR 1



VSWR2

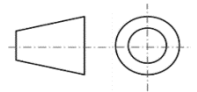


Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish : Nickel Plated
3. All dimensions are in millimeters [inches]
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



Additional Information

Documentation

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-308-1-3G	Standard	2.95GHz-3.05GHz Coaxial Isolator

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