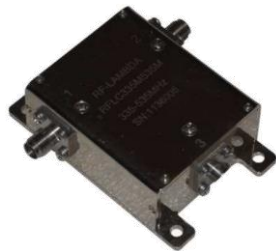


Ultra Wide Band Coaxial Isolator 300MHz – 500MHz



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

Product Description

RFLI101M30M50 is an ultra wide band coaxial isolator with a frequency range of 300 to 500MHz.

The Isolator has a minimum isolation of 17dB. The maximum insertion loss is 0.9dB.

The operating temperature of this product is from -20 to +70°C

Features

- High power handling up to 50W
- 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

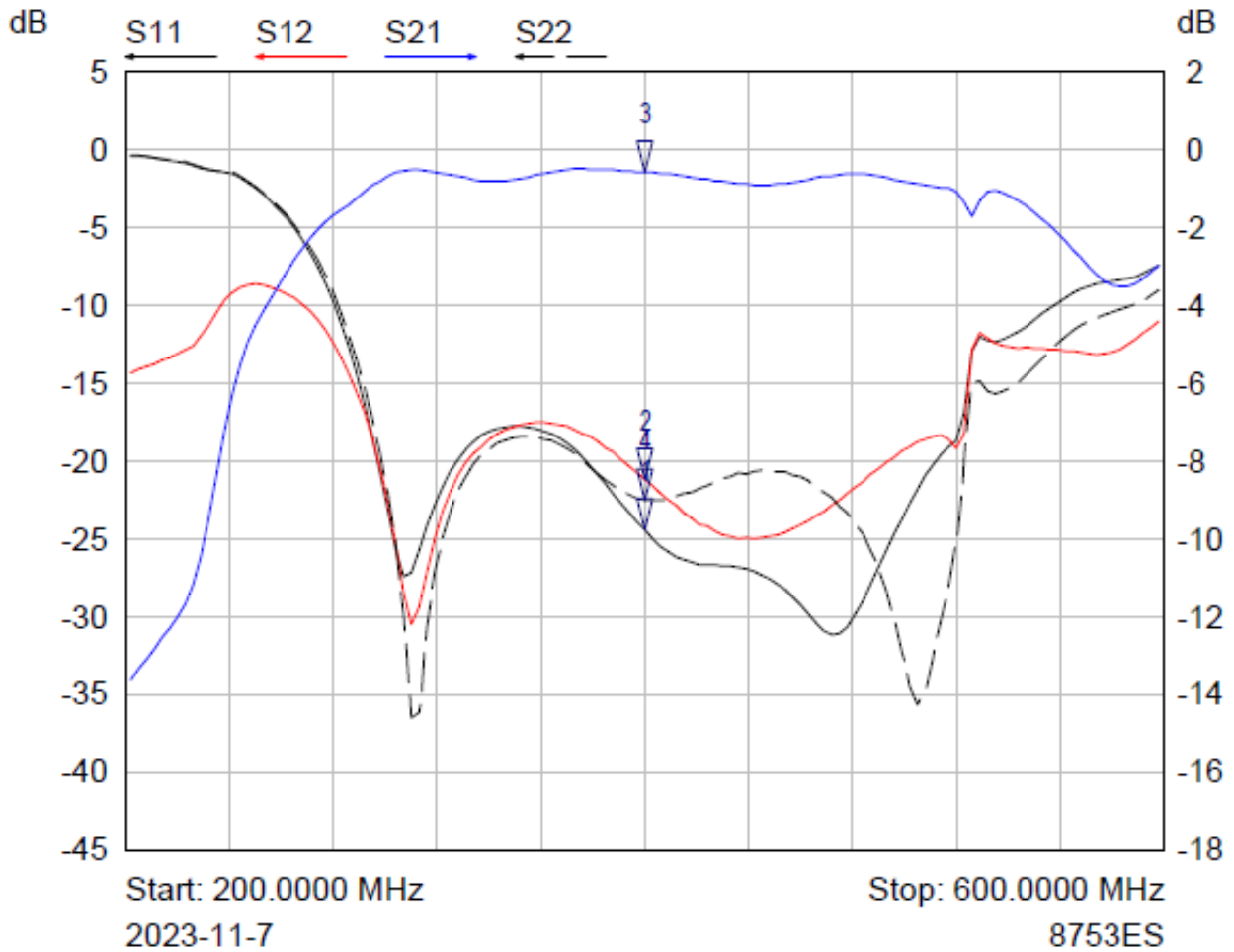
Electrical Specifications($T_A=25^\circ\text{C}$)

Parameter	Min	Typ	Max	Units
Frequency Range		300-500		MHz
Insertion Loss			0.9	dB
Isolation	17			dB
VSWR			1.33	:1
Forward Power (CW)			50	W
Reverse Power(CW)			5	W
Rotation		Clockwise (Standard) Counter Clockwise(upon request)		
Connectors		N-Female or SMA-Female		
Impedance		50		Ω

Environmental Specifications and Test Standards

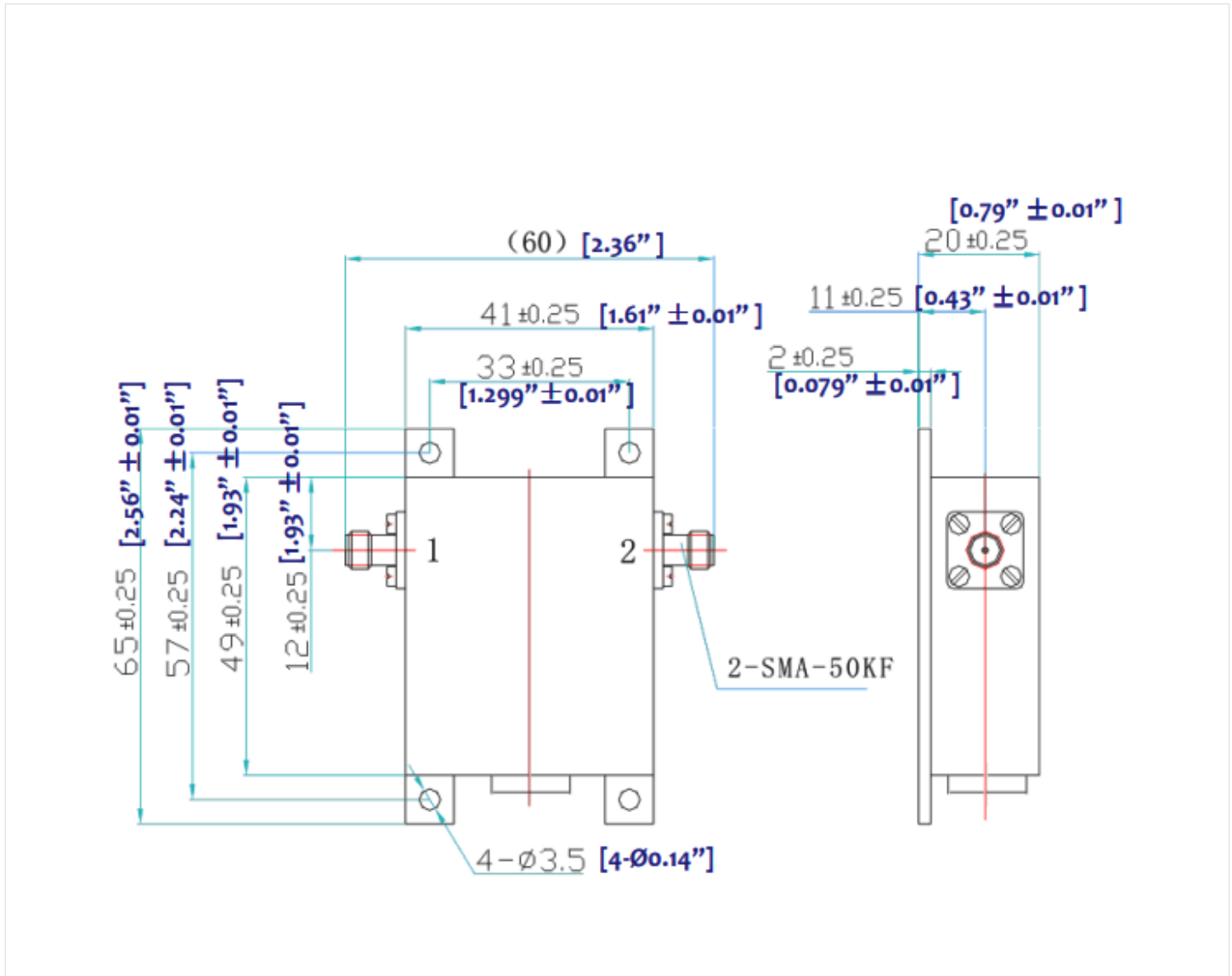
Parameter	Description
Operational Temperature	-20°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-20°C → +70°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	400.0000 MHz	-24.46 dB	
2 ▾	S12	400.0000 MHz	-21.18 dB	
3 ▾	S21	400.0000 MHz	-0.56 dB	
4 ▾	S22	400.0000 MHz	-22.47 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Nickel Plated
3. All dimensions are in millimeters [inches].
4. Standard torque wrench must be used to secure RF connectors.

Additional Information

Documentation	Webpage
ESD Policy	https://rflambda.com/pdf/rflambda_esd_control.pdf
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
RFLI101M30M50	Connectors SMA-Female / N-Female	300MHz-500MHz Coaxial Isolator

Important Notice

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