

## Ultra Wide Band Coaxial Isolator 214MHz – 286MHz



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

### Product Description

RFLI090M21M29 is an ultra wide band coaxial isolator with a frequency range of 214 to 286MHz.

The Isolator has a minimum isolation of 19dB. The maximum insertion loss is 0.6dB.

The operating temperature of this product is from -40 to +85°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

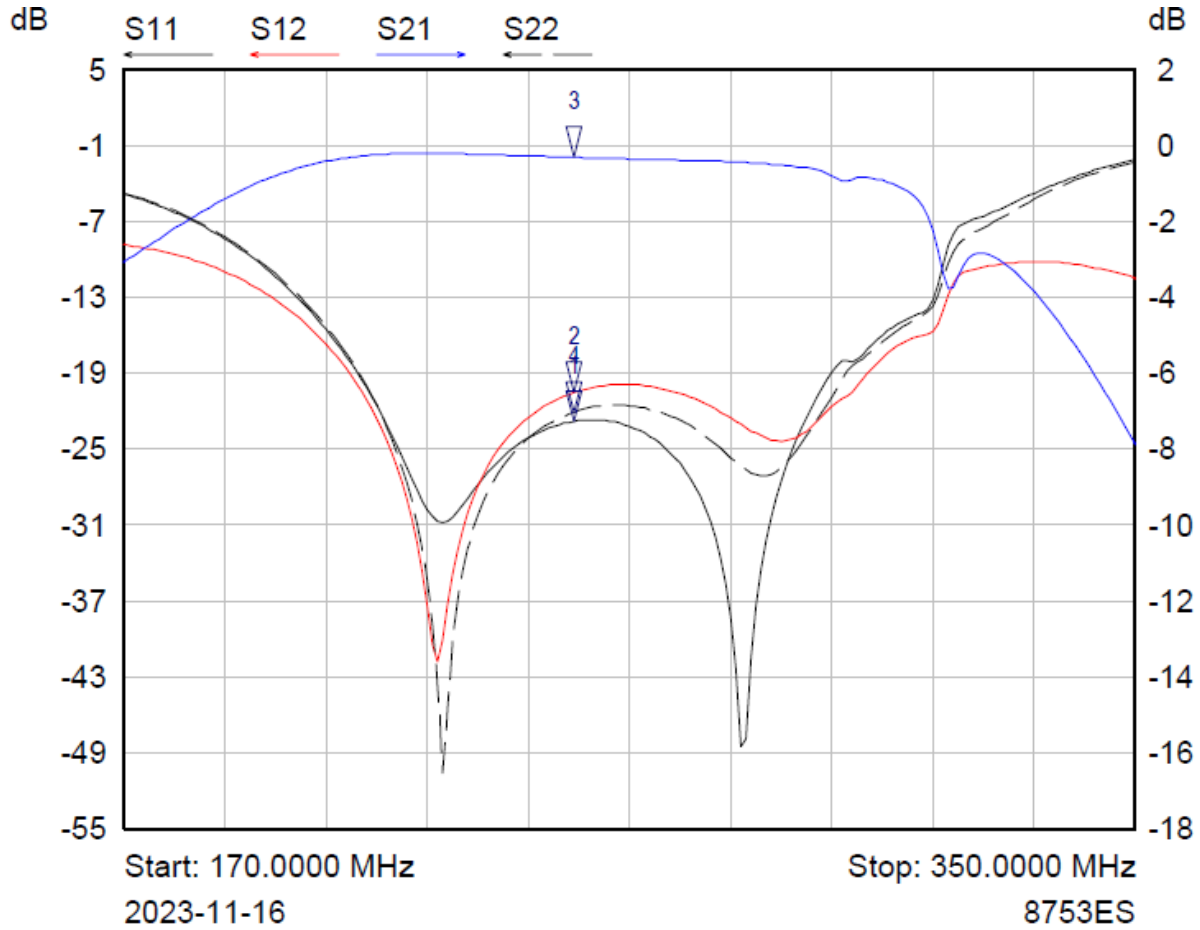
### Electrical Specifications(T<sub>A</sub>=25°C)

Parameter	Min	Typ	Max	Units
Frequency Range		214 - 286		MHz
Insertion Loss			0.6	dB
Isolation	19			dB
VSWR			1.3	: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**

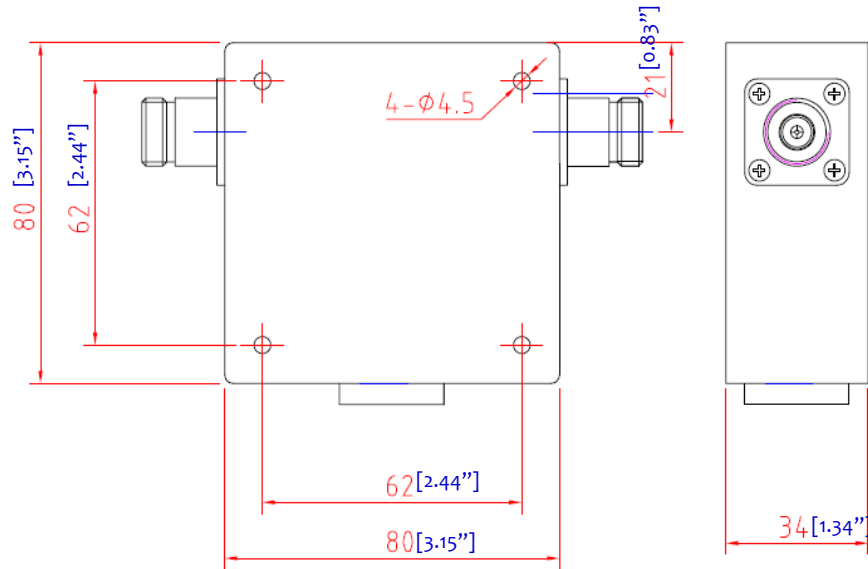
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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	250.0000 MHz	-22.79 dB	
2 ▾	S12	250.0000 MHz	-20.56 dB	
3 ▾	S21	250.0000 MHz	-0.31 dB	
4 ▾	S22	250.0000 MHz	-22.08 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	<a href="https://rflambda.com/pdf/rflambda_esd_control.pdf">https://rflambda.com/pdf/rflambda_esd_control.pdf</a>
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
RFLI090M21M29	Connectors N-Female or SMA-Female	214MHz-286MHz Coaxial Isolator

**Important Notice**

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