

Wide Band Coaxial Circulator 240MHz-400MHz



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

Product Description

RFLC101M24M40 is a wide band coaxial circulator with a frequency range of 240 to 400MHz.

The circulator has a minimum isolation of 18dB. The maximum insertion loss is 0.8dB.

The RFLC101M24M40N input and output connectors are N-Female and RFLC101M24M40S input and output connectors are SMA-Female .

Features

- High power handling up to 50W
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

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

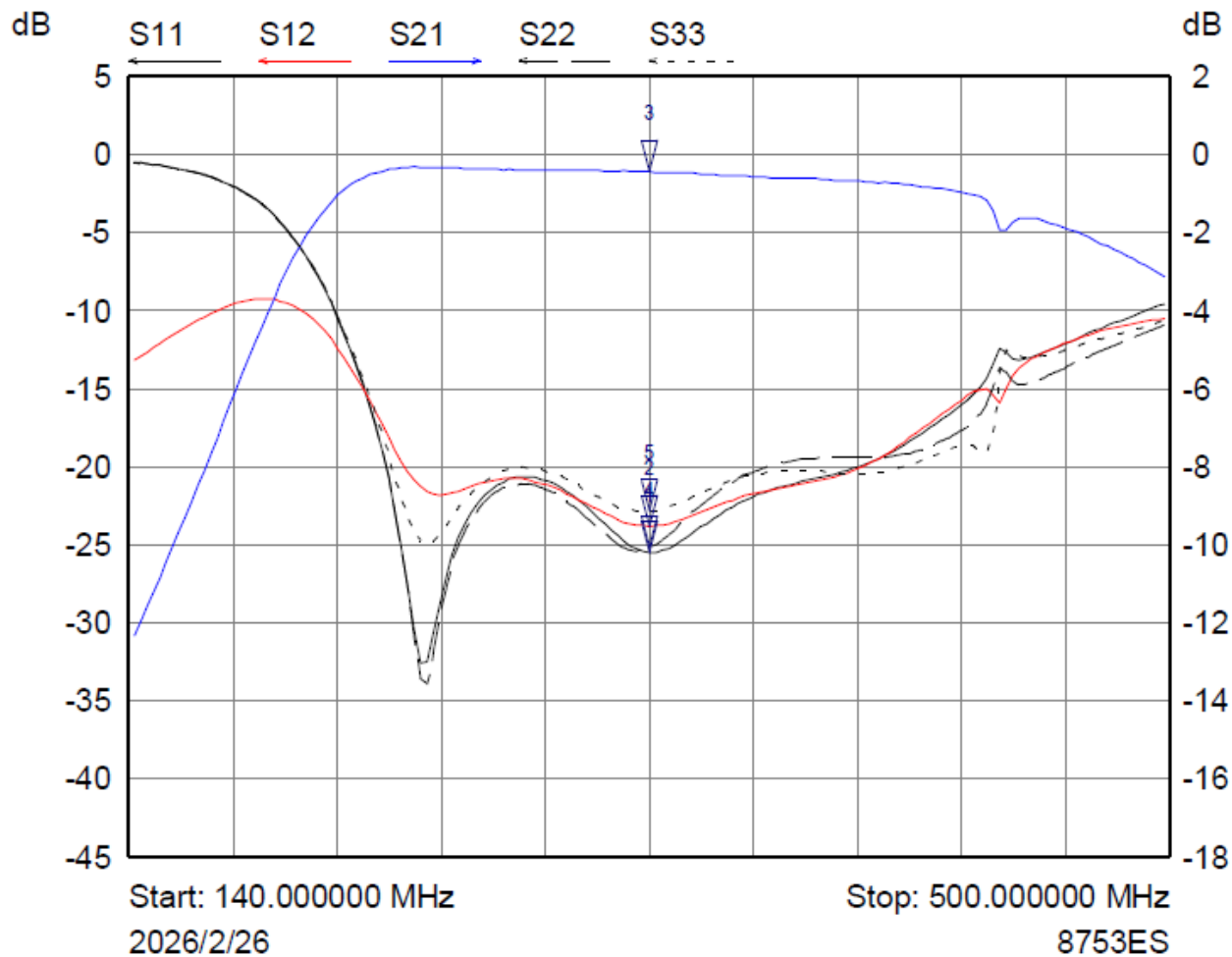
Electrical Specifications($T_A=25^{\circ}\text{C}$)

Parameter	Min	Typ	Max	Units
Frequency Range		240 – 400		MHz
Insertion Loss		0.7	0.8	dB
Isolation	18	19		dB
VSWR		1.25	1.29	:1
Power Handling (CW)			50	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		RFLC101M24M40S (SMA-Female) RFLC101M24M40N (N-Female)		
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°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)

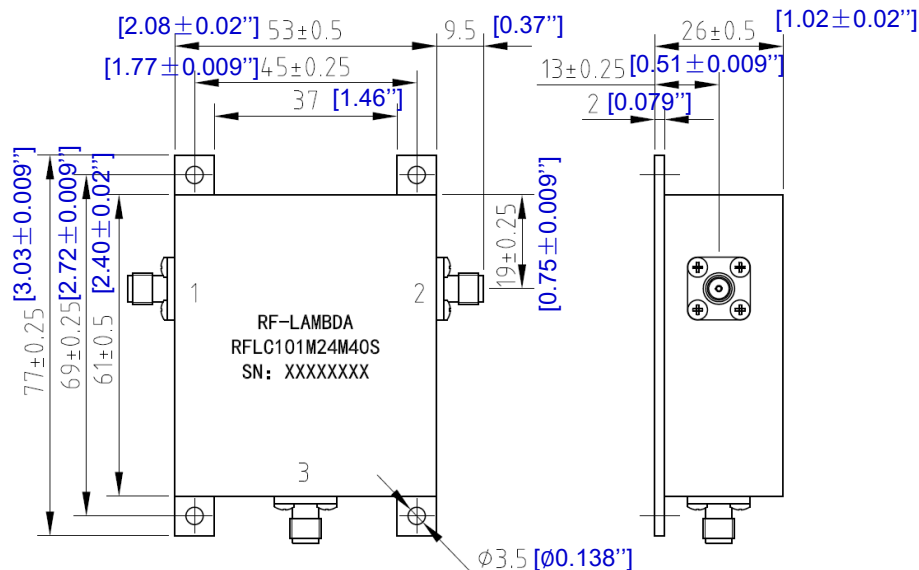
Typical Performance Plots



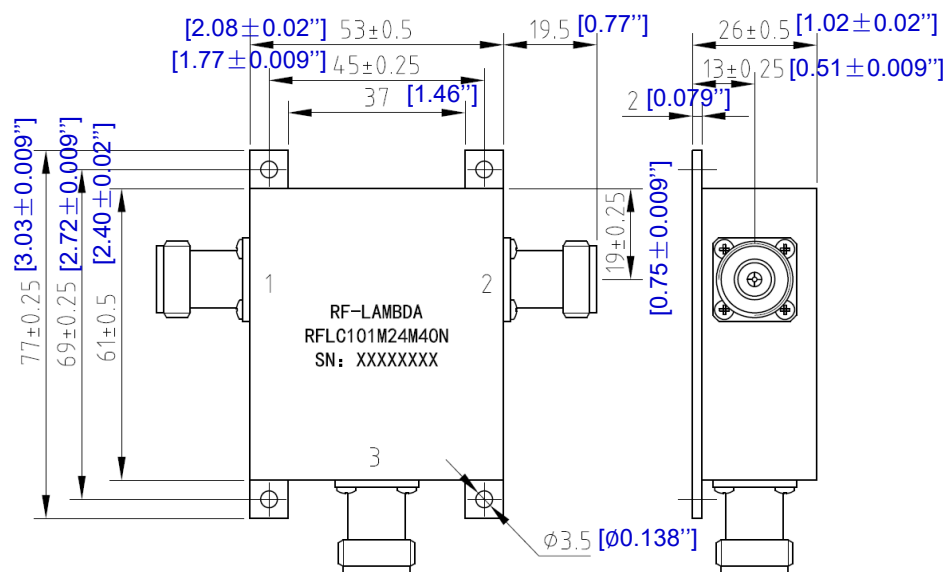
Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	320.000000 MHz	-25.4949 dB	
2 ▽	S12	320.000000 MHz	-23.7939 dB	
3 ▽	S21	320.000000 MHz	-0.4434 dB	
4 ▽	S22	320.000000 MHz	-25.1863 dB	
5 ▽	S33	320.000000 MHz	-22.8547 dB	

Outline Drawing

SMA-Female Version Shown



N-Female Version Shown



Notes:

1. Package Material: Aluminum Alloy / Copper
2. Finish: Nickel Plated
3. All dimensions are in millimeters [inches]

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
RFLC101M24M40N	N-Female Connectors	240MHz-400MHz Coaxial Circulator
RFLC101M24M40S	SMA-Female Connectors	240MHz-400MHz Coaxial Circulator

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