

## Wide Band Coaxial Circulator 200 - 400MHz



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

### Product Description

RFLC101M20M40 is a wide band coaxial circulator with a frequency range of 200 to 400MHz.

The circulator has a typical isolation of 15dB. The maximum insertion loss is 1.5dB. The circulator has good isolation performance.

The circulator input and output connectors are SMA Female.

### Features

- High power handling up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation
- 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

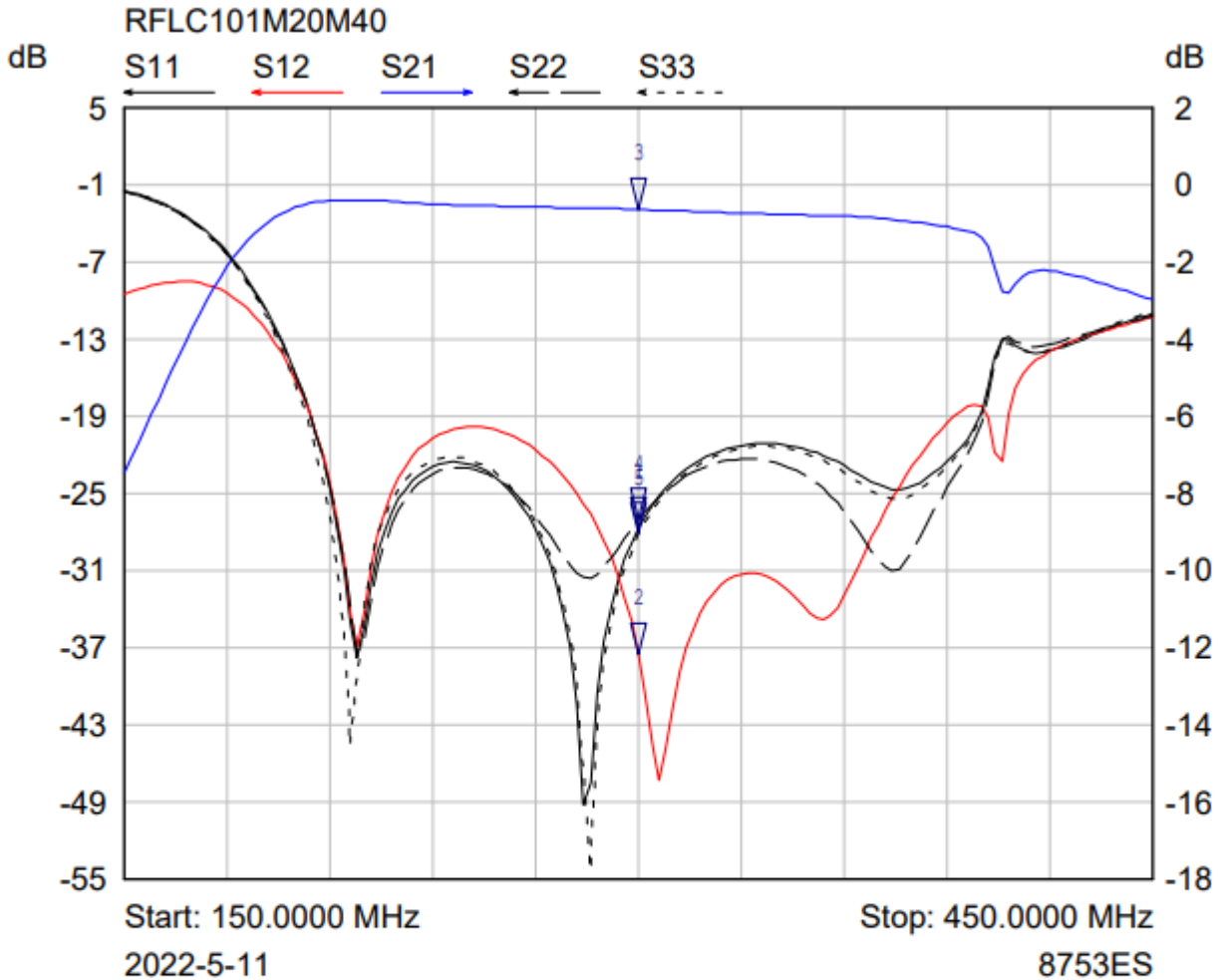
### Electrical Specifications (T<sub>A</sub>=+25°C)

Parameter	Min	Typ	Max	Units
Frequency Range		200-400		MHz
Insertion Loss			1.50	dB
Isolation	15			dB
VSWR			1.43	:1
Forward Power (CW)			50	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Connectors		SMA Female		
Weight		--		lbs.
Impedance		50		Ω

**Environmental Specifications and Test Standards**

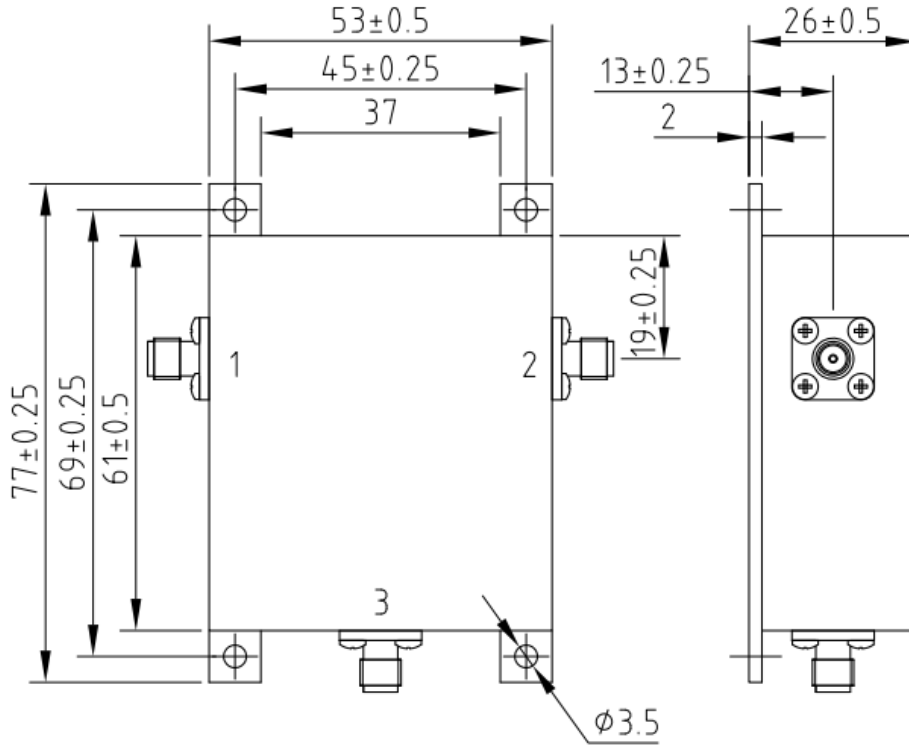
Parameter	Description
Operational Temperature	-40°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C → +70°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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	300.0000 MHz	-27.71 dB	
2 ▾	S12	300.0000 MHz	-37.50 dB	
3 ▾	S21	300.0000 MHz	-0.65 dB	
4 ▾	S22	300.0000 MHz	-27.03 dB	
5 ▾	S33	300.0000 MHz	-28.14 dB	

**Outline Drawing**



Notes:

1. Package Material: Aluminum Alloy
2. Plating: Nickel
3. All dimensions are in millimeters [inches].

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
RFLC101M20M40	Standard	200MHz-400MHz Circulator

**Important Notice**

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