

Ultra Wide Band Coaxial Circulator 100-200MHz



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

Product Description

RFLC101M10M20 is an ultra wide band coaxial circulator with a frequency range of 100 to 200MHz.

The circulator has a typical isolation of 15dB. The maximum insertion loss is 1.43dB.

The operating temperature of this product is within -20 to +75°C

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

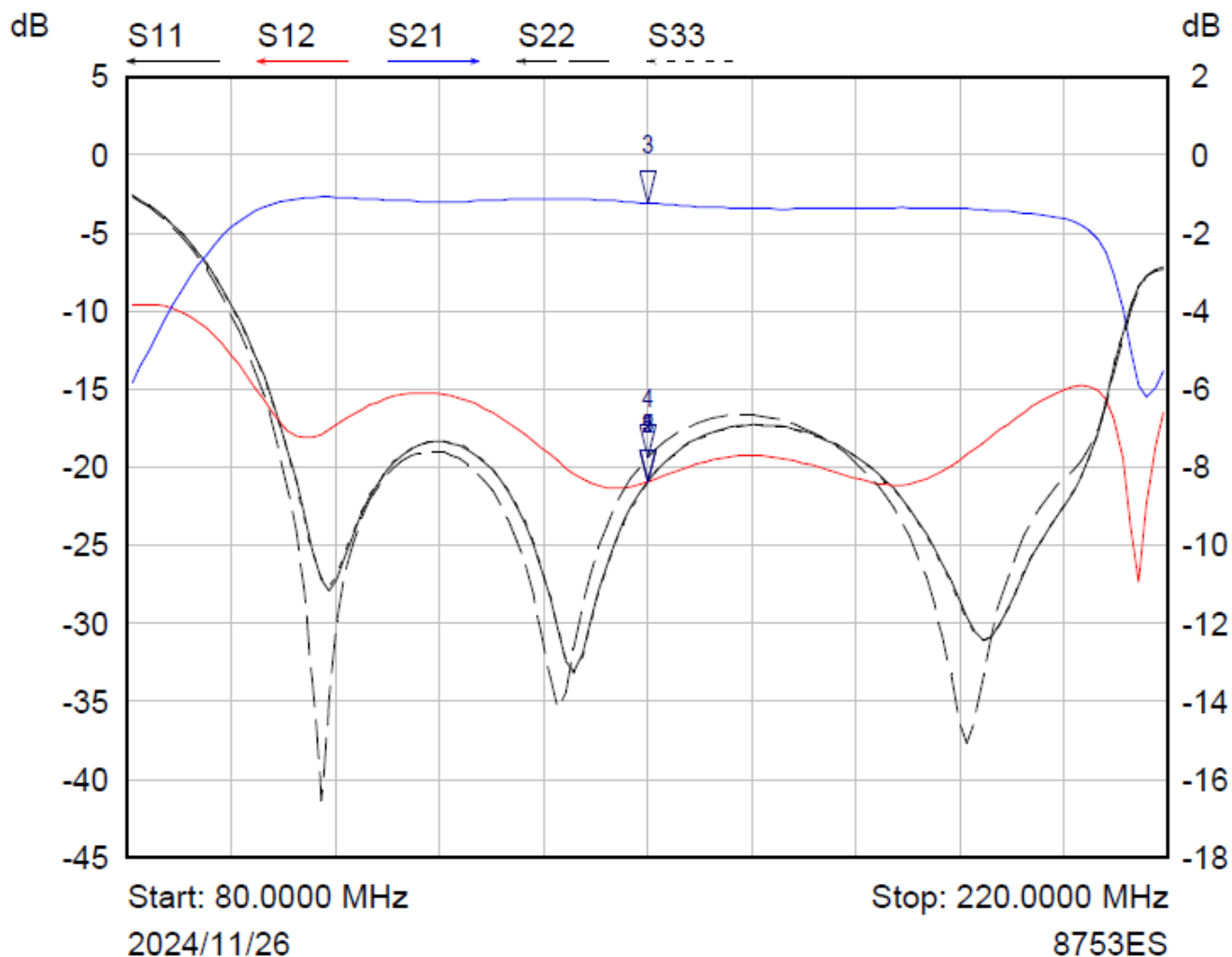
Electrical Specifications($T_A=25^\circ\text{C}$)

Parameter	Min	Typ	Max	Units
Frequency Range		100 – 200		MHz
Insertion Loss		1.45	1.5	dB
Isolation	14	15		dB
VSWR		1.4	1.43	:1
Power Handling (CW)			50	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		RFLC101M10M20S (SMA-Female) RFLC101M10M20N (N-Female)		
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +75°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)

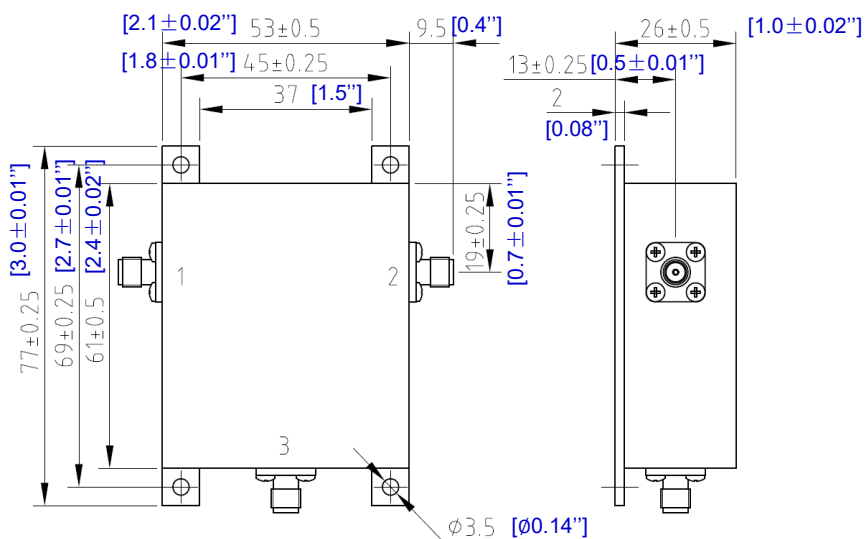
Typical Performance Plots



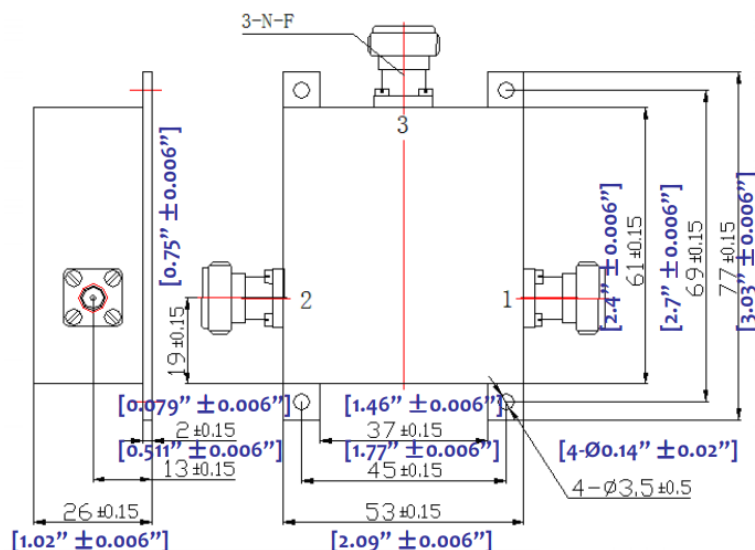
Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	150.0000 MHz	-20.88 dB	
2 ▽	S12	150.0000 MHz	-20.91 dB	
3 ▽	S21	150.0000 MHz	-1.23 dB	
4 ▽	S22	150.0000 MHz	-19.35 dB	
5 ▽	S33	150.0000 MHz	-20.93 dB	

Outline Drawing

SMA Version



N-Version



Notes:

1. Package Material: Aluminum Alloy or Copper
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

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

Webpage

Ordering Information

Part Number	Modification	Description
RFLC101M10M20S	SMA–Female Connectors	100MHz-200MHz Coaxial Circulator
RFLC101M10M20N	N–Female Connectors	100MHz-200MHz Coaxial Circulator

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