Coaxial Circulator
2.4GHz - 2.5GHz

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

Product Description

RFLC-303-2-2450M is a coaxial circulator with a frequency range of 2.4 to 2.5GHz.

The circulator has a typical isolation of 21dB. The maximum insertion loss is 0.3dB.

The circulator input and output connectors are SMA-Female.

Features

- High power handling up to 10W
- 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=+25ºC)

Parameter	Min.	Typ.	Max.	Units
Frequency Range		2.4 - 2.5		GHz
Insertion Loss			0.3	dB
Reverse Isolation	21			dB
VSWR			1.2	:1
Power Handling			10	W
Rotation		Clockwise		
Input / Output Connectors		SMA-Female(Input) – SMA-Female(Output)		
Weight		-		lbs.
Impedance		50		Ω

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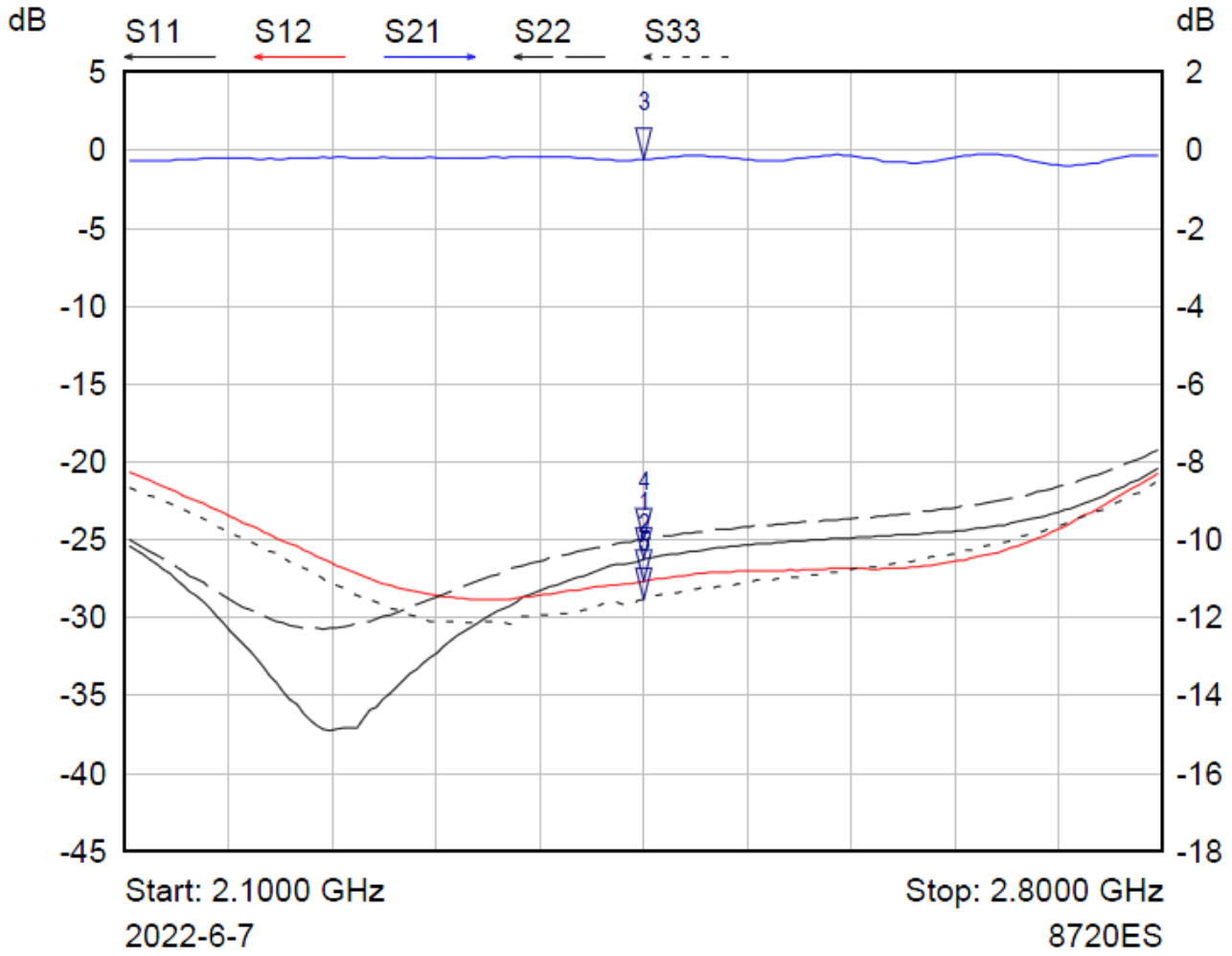
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20ºC to +60ºC (Case Temperature)
Storage Temperature	-40ºC to +85ºC
Thermal Shock	-20ºC → +60ºC (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)

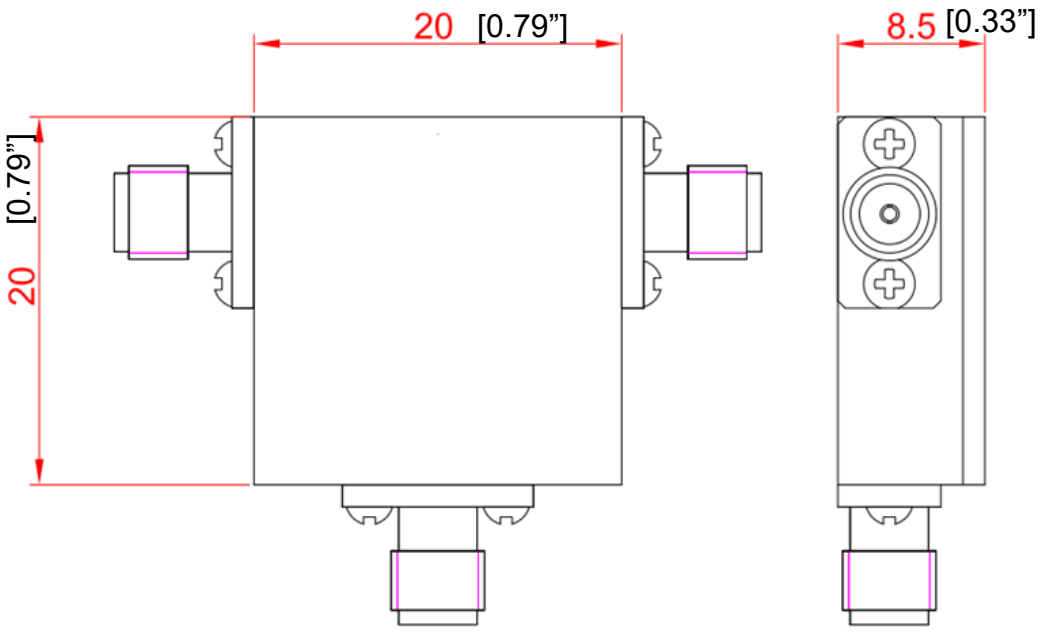
*For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1	S11	2.4500 GHz	-26.28 dB	
2	S12	2.4500 GHz	-27.65 dB	
3	S21	2.4500 GHz	-0.23 dB	
4	S22	2.4500 GHz	-24.97 dB	
5	S33	2.4500 GHz	-28.81 dB	

Outline Drawing



Notes:
1. Package Material: Aluminum Alloy / Copper
2. Plating: Nickel
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ±0.5 [0.02], Mounting Hole Tolerances ±0.2 [0.008] unless otherwise specified

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
RFLC-303-2-2450M	Standard	2.4GHz-2.5GHz Coaxial Circulator

Important Notice

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