Wide Band Coaxial Circulator
150MHz-180MHz

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

Product Description

RFC237W200M165 is a wide band coaxial circulator with a frequency range of 150 to 180MHz.

The circulator has a typical isolation of 19dB. The maximum insertion loss is 0.5dB.

The circulator input and output connectors are N-Female.

Features

- High power handling up to 200W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- 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_A=+25ºC)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	150		180	MHz
Insertion Loss		0.45	0.5	dB
Isolation	18	19		dB
VSWR		1.25	1.29	:1
Power Handling			200	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		N-Female		
Impedance		50		Ω

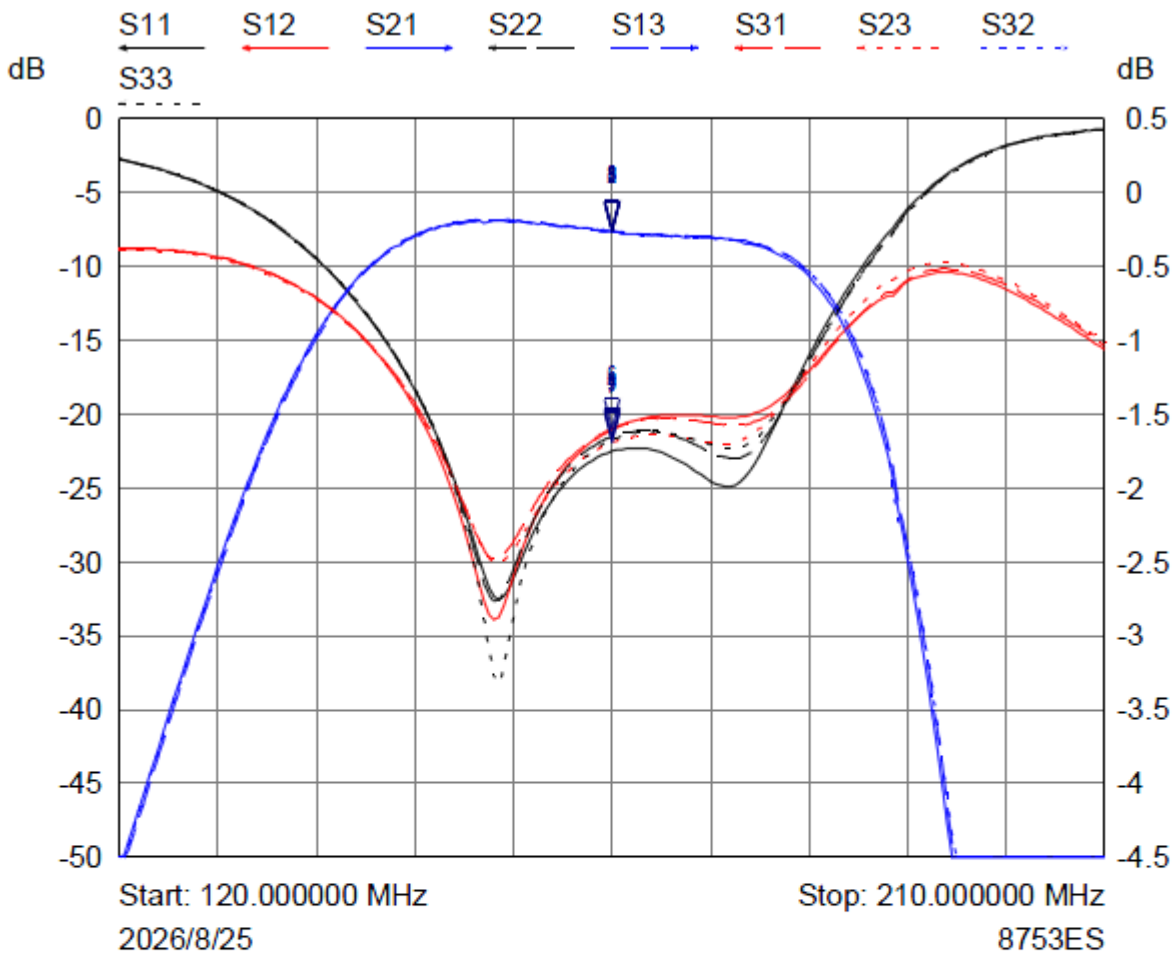
RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com

Environmental Specifications and Test Standards

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

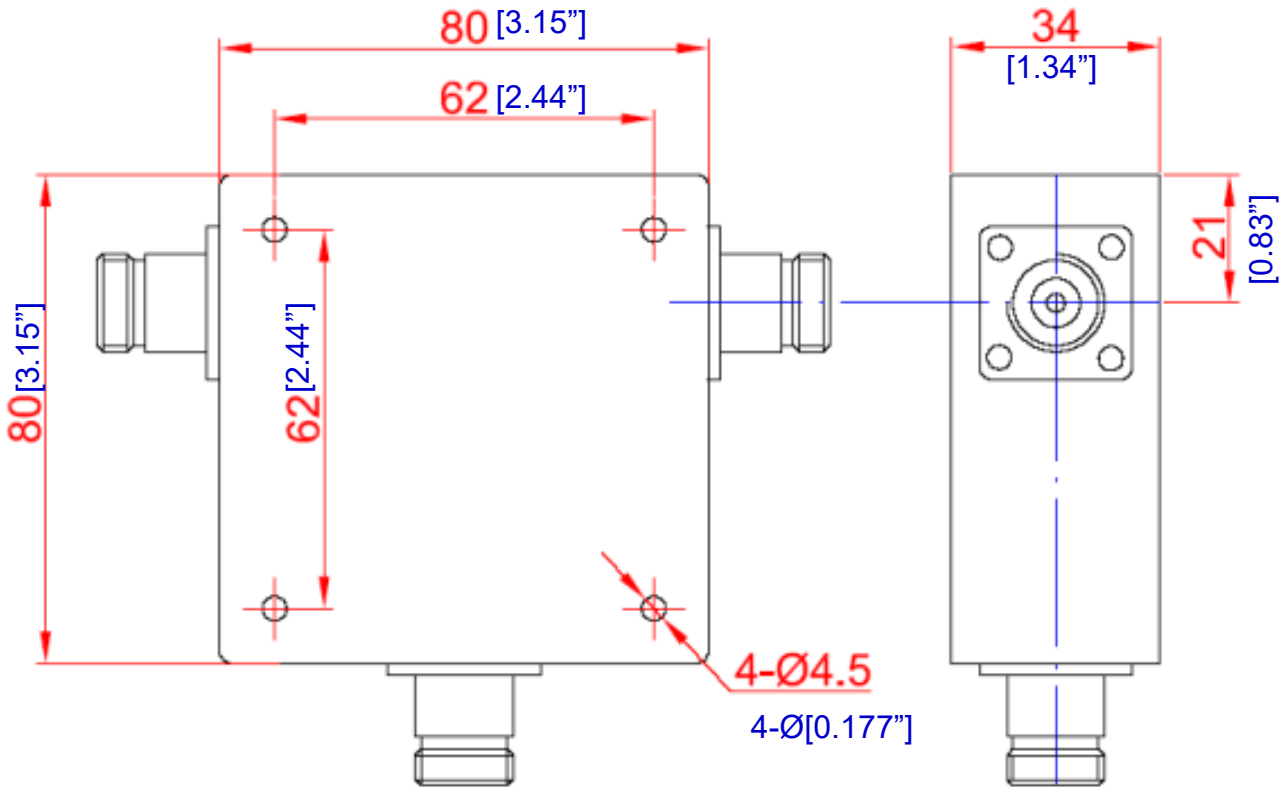
*For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1	S21	165.000000 MHz	-0.2616 dB	
2	S13	165.000000 MHz	-0.2659 dB	
3	S21	165.000000 MHz	-0.2616 dB	
4	S22	165.000000 MHz	-21.5599 dB	
5	S13	165.000000 MHz	-0.2659 dB	
6	S31	165.000000 MHz	-21.0207 dB	
7	S23	165.000000 MHz	-21.9227 dB	
8	S32	165.000000 MHz	-0.2600 dB	
9	S33	165.000000 MHz	-21.7725 dB	

Outline Drawing



Notes:
1. All dimensions are in millimeters [inches].
2. Standard torque wrench must be used to secure RF connectors.

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
RFC237W200M165	Connectors N-Female	150MHz-180MHz Coaxial Circulator

Important Notice

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RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com