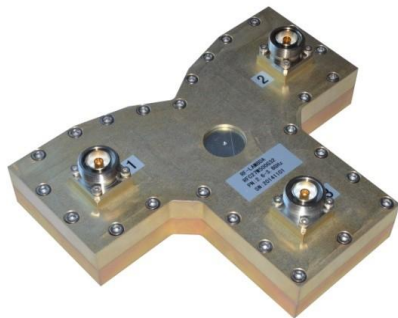


500W Wide Band Circulator 2.6GHz-3.8GHz



Product Description

RFC27W500G32 is a wide band circulator with a frequency range of 2.6 to 3.8GHz.

The circulator has a minimum isolation of 18dB. The maximum insertion loss is 0.5dB.

The circulator input and output connectors are 7/16-Female.

Features

- High power handling up to 500W
- Wide band operation
- 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 ($T_A=+25^{\circ}\text{C}$)

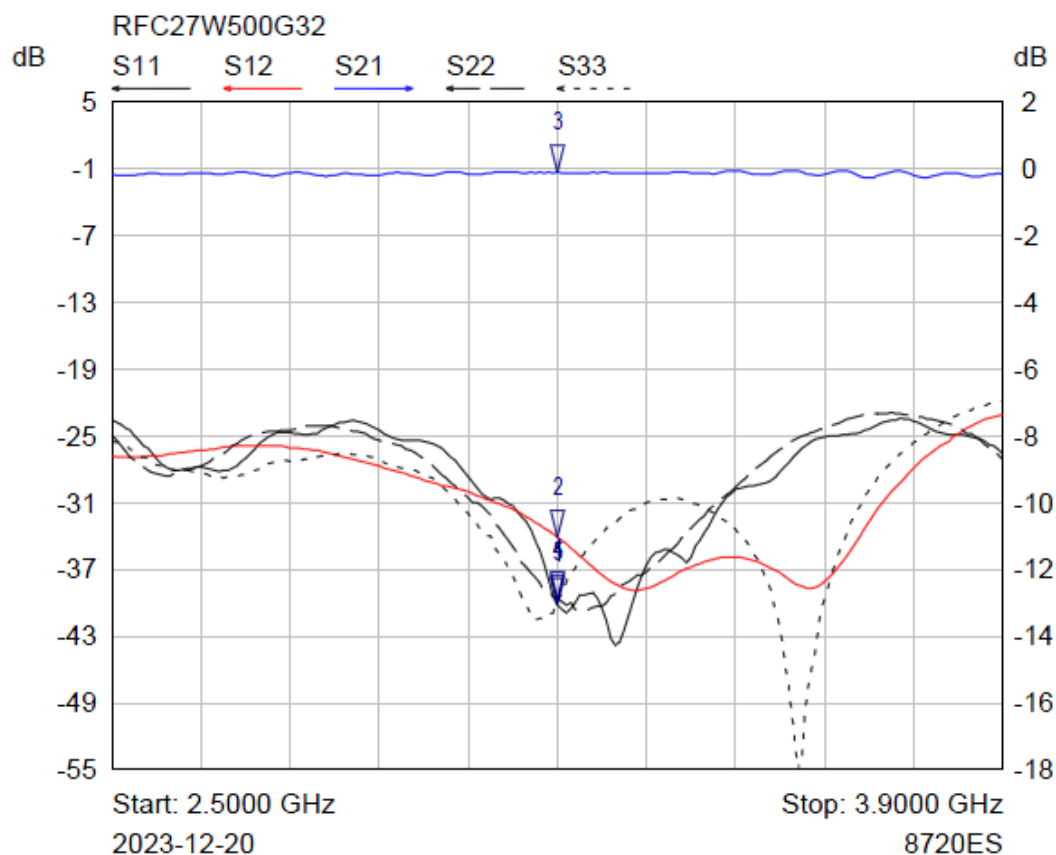
Parameter	Min.	Typ.	Max.	Units
Frequency Range		2.6-3.8		GHz
Insertion Loss			0.5	dB
Isolation	18			dB
VSWR			1.3	:1
Forward Power (CW)			500	W
Reverse Power (CW)			500	W
Rotation		Clockwise		
Input / Output Connectors		7/16-Female		
Weight		6.7		lbs.
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +50°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)

*For vibration testing details please see additional information section.

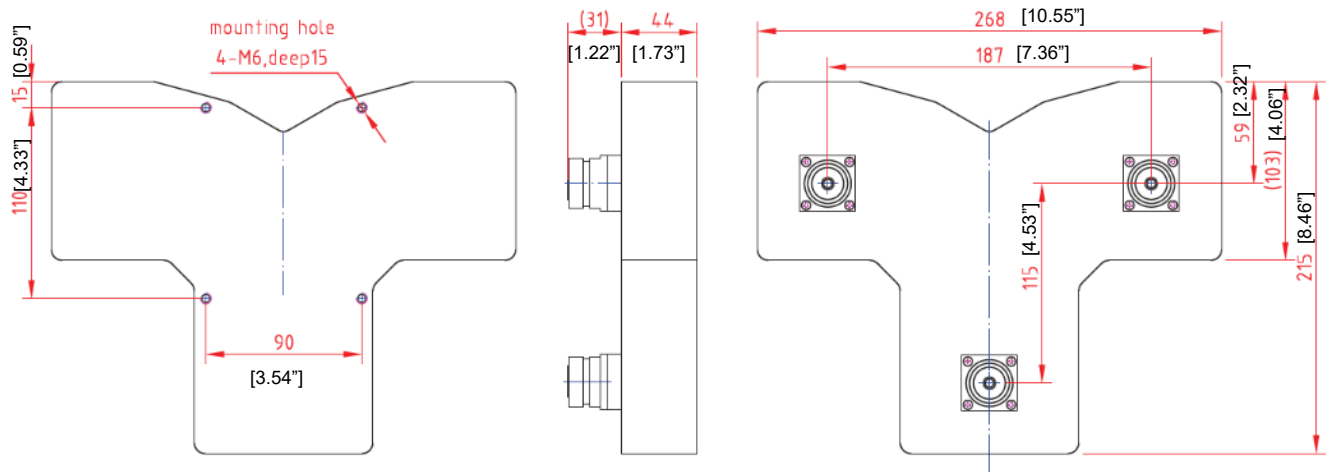
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	3.2000 GHz	-40.17 dB	
2 ▽	S12	3.2000 GHz	-34.08 dB	
3 ▽	S21	3.2000 GHz	-0.10 dB	
4 ▽	S22	3.2000 GHz	-39.58 dB	
5 ▽	S33	3.2000 GHz	-39.92 dB	

SN:20231204

Outline Drawing



Notes:

1. Package Material: Aluminum / Copper
2. Finish: Conductive Oxidation.
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
RFC27W500G32	Connectors 7/16-Female	2.6GHz-3.8GHz Circulator

Important Notice

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