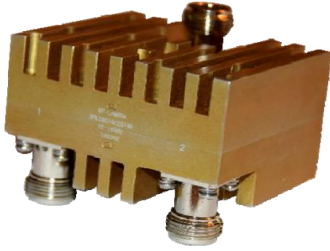


## 150W Wide Band High Power Circulator 12GHz-18GHz



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

### Product Description

RFLC601G12G18H is a high power coaxial circulator with a frequency range of 12 to 18GHz.

The circulator has a typical isolation of 17dB. The maximum insertion loss is 0.6dB.

The circulator input and output connectors are N-Female.

### Features

- High power handling up to 150W
- 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<sub>A</sub>=+25°C)

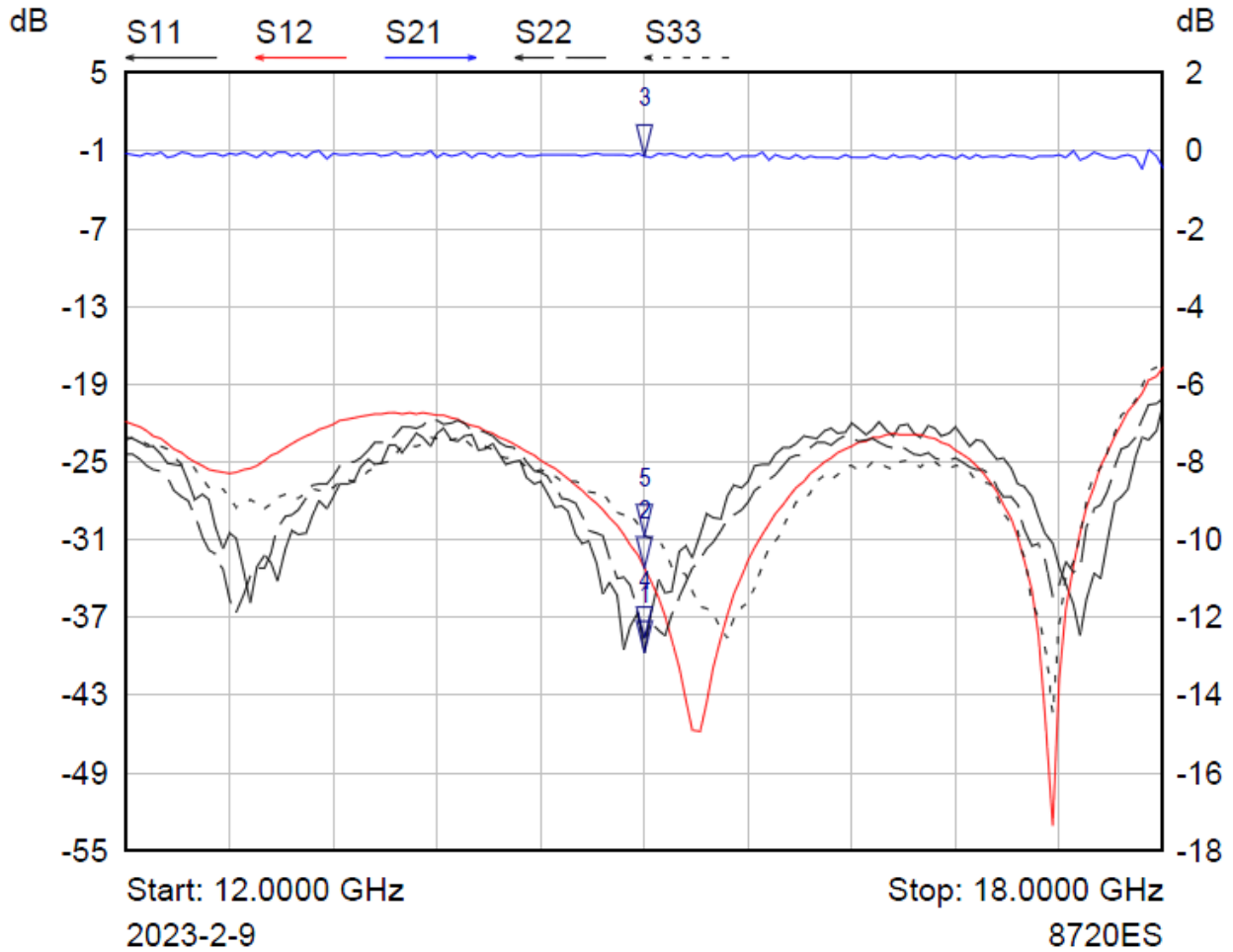
Parameter	Min.	Typ.	Max.	Units
Frequency Range		12-18		GHz
Insertion Loss			0.6	dB
Isolation (Note 1)	17			dB
VSWR			1.33	:1
Power	Average	150		W
	Peak	(0.2% duty Cycle 25us pulse width)		KW
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		N-Female		
Impedance		50		Ω

**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-20°C to +70°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)

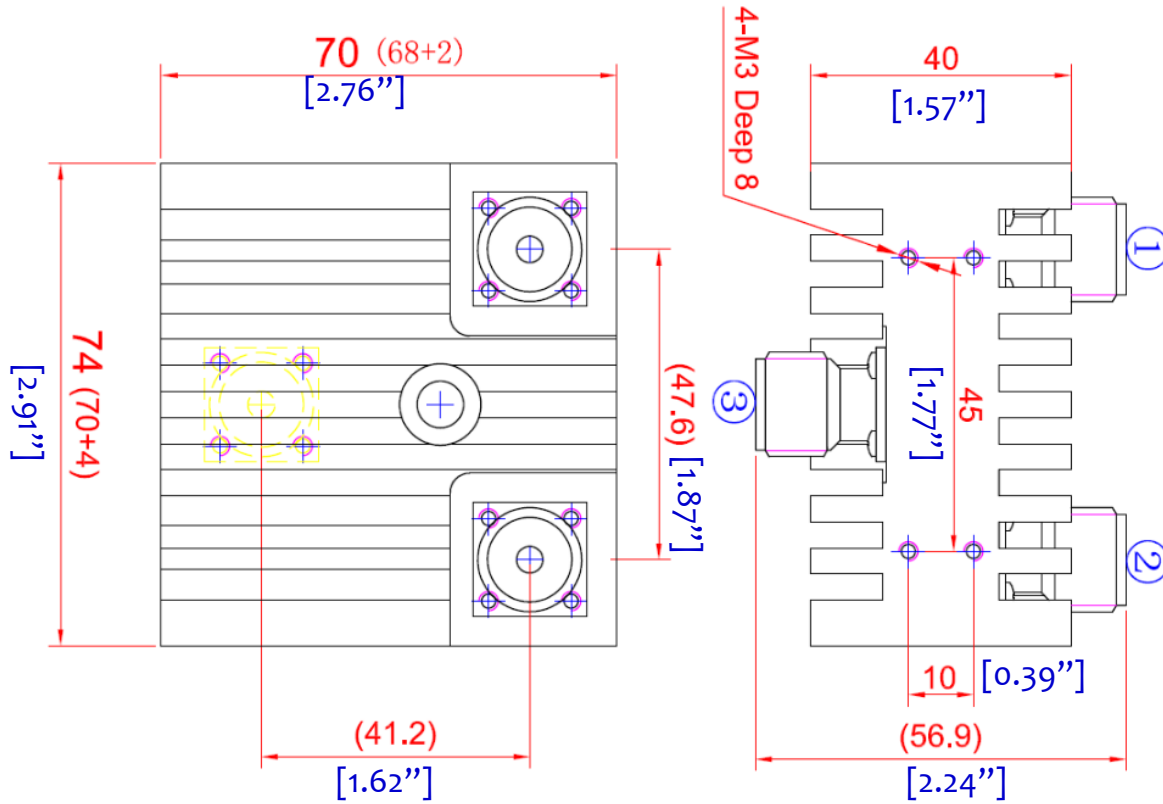
\*For vibration testing details please see additional information section.

**Typical Performance Plots**



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	15.0000 GHz	-39.70 dB	
2 ▾	S12	15.0000 GHz	-33.17 dB	
3 ▾	S21	15.0000 GHz	-0.14 dB	
4 ▾	S22	15.0000 GHz	-38.59 dB	
5 ▾	S33	15.0000 GHz	-30.74 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum alloy
2. Finish: Nickel Plated/Gold Plated
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
RFLC601G12G18H	Connectors N-Female	12GHz-18GHz High Power Circulator

**Important Notice**

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