

Wide Band Drop in Circulator 4.4GHz-4.95GHz



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

Features

- High power handling up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

Product Description

RFLC401G04G05N is a wide band drop in circulator with a frequency range of 4.4 to 4.95GHz.

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

The circulator Packaging is Drop in.

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

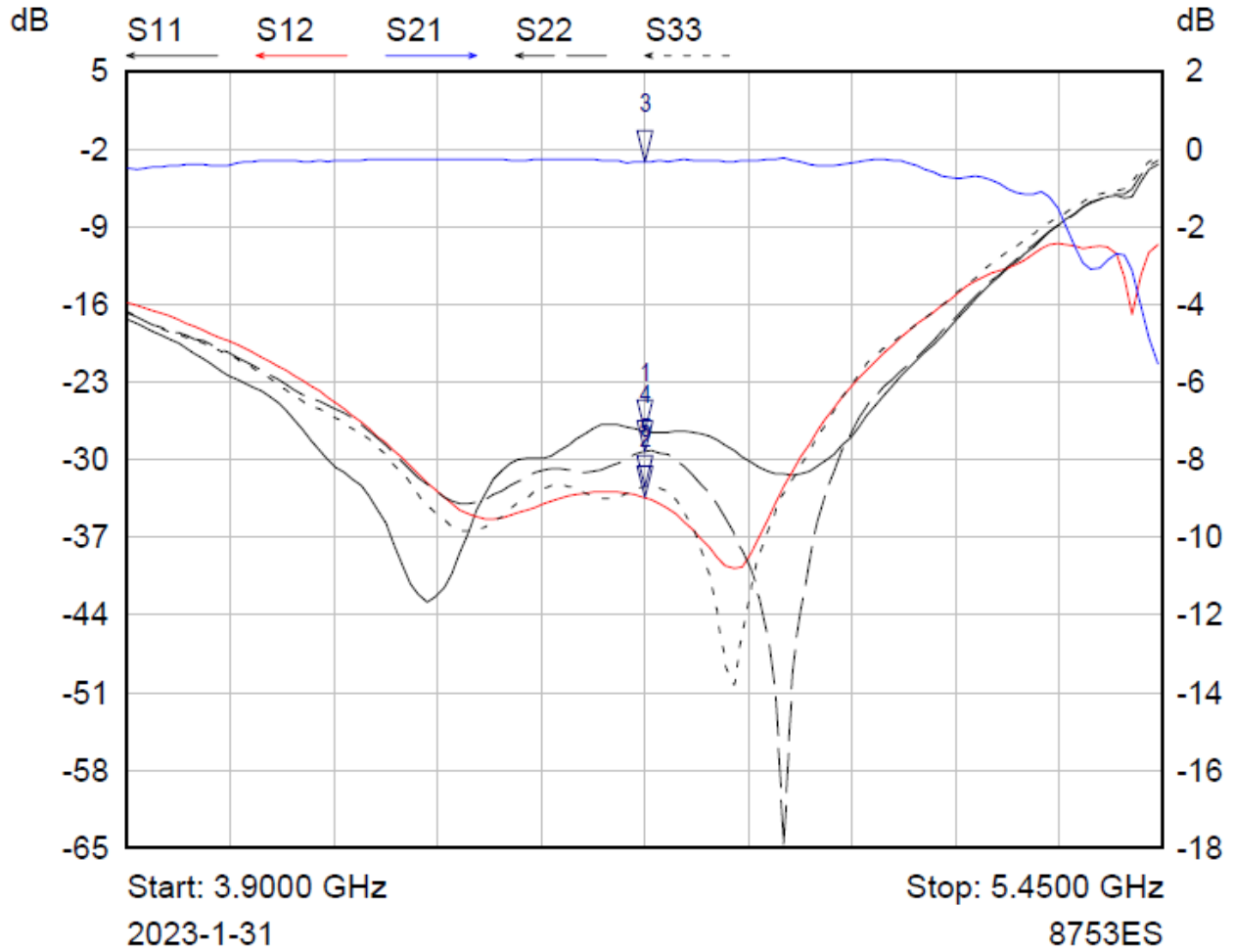
Parameter	Min	Typ	Max	Units
Frequency Range		4.4 – 4.95		GHz
Insertion Loss			0.5	dB
Isolation	18			dB
VSWR			1.3	:1
Forward Power (CW)			50	W
Reverse Power (CW)			5	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°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)

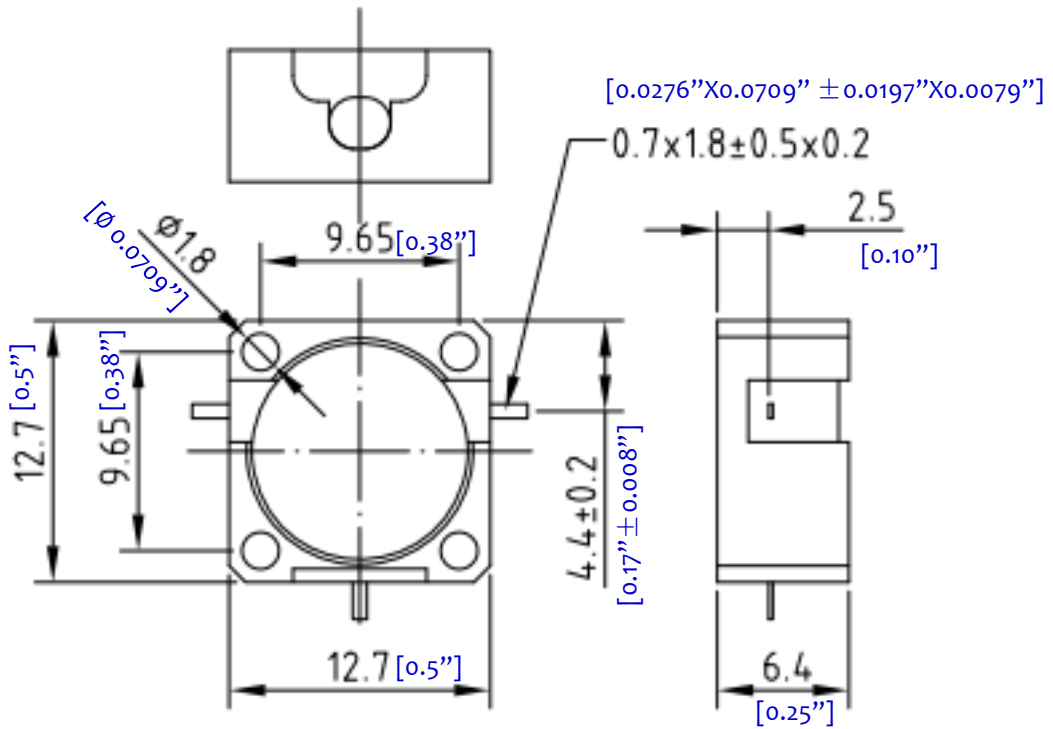
*For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	4.6750 GHz	-27.47 dB	
2 ▾	S12	4.6750 GHz	-33.43 dB	
3 ▾	S21	4.6750 GHz	-0.34 dB	
4 ▾	S22	4.6750 GHz	-29.32 dB	
5 ▾	S33	4.6750 GHz	-32.45 dB	

Outline Drawing



Notes:

1. 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
RFLC401G04G05N	Drop in	4.4GHz-4.95GHz Drop in Circulator

Important Notice

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