

Triple Junction Circulator 4 - 8GHz



Product Description

RFLC407G4G8 is a triple junction circulator with a frequency range of 4 to 8GHz.

The circulator has a typical isolation of 15dB. The maximum insertion loss is 1.2dB.

The operating temperature of this product is within -20 to +70°C

Features

- High power handling up to 10W
- 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

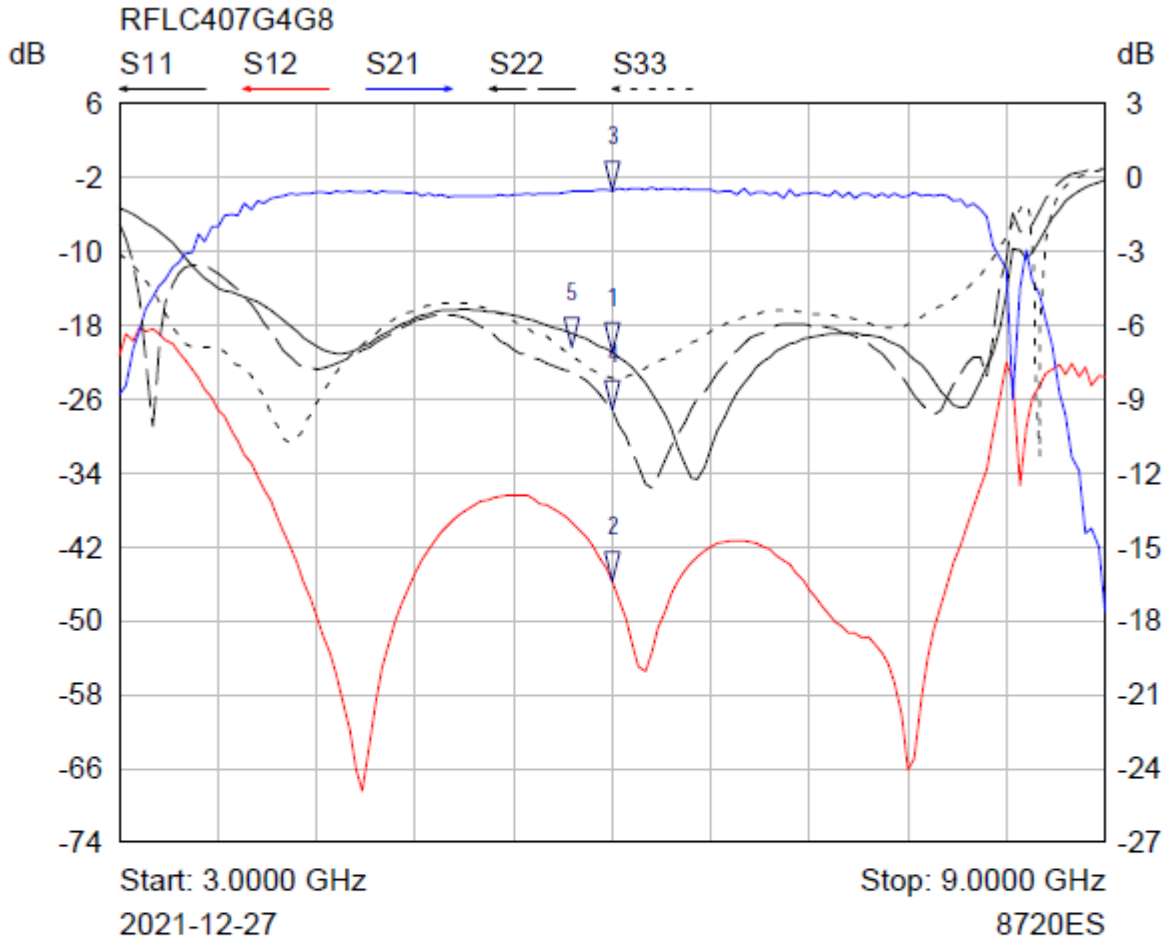
Electrical Specifications(T_A=25°C)

Parameter	Min	Typ	Max	Units
Frequency Range		4 – 8		GHz
Insertion Loss Port 1→2 Port 2→3			1.2	dB
Isolation Port 2→1 Port 3→2	15			dB
Isolation Port 3→1		N/A		dB
VSWR			1.43	:1
Forward Power (CW)			10	W
Reverse Power (CW)			3	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		SMA		
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)

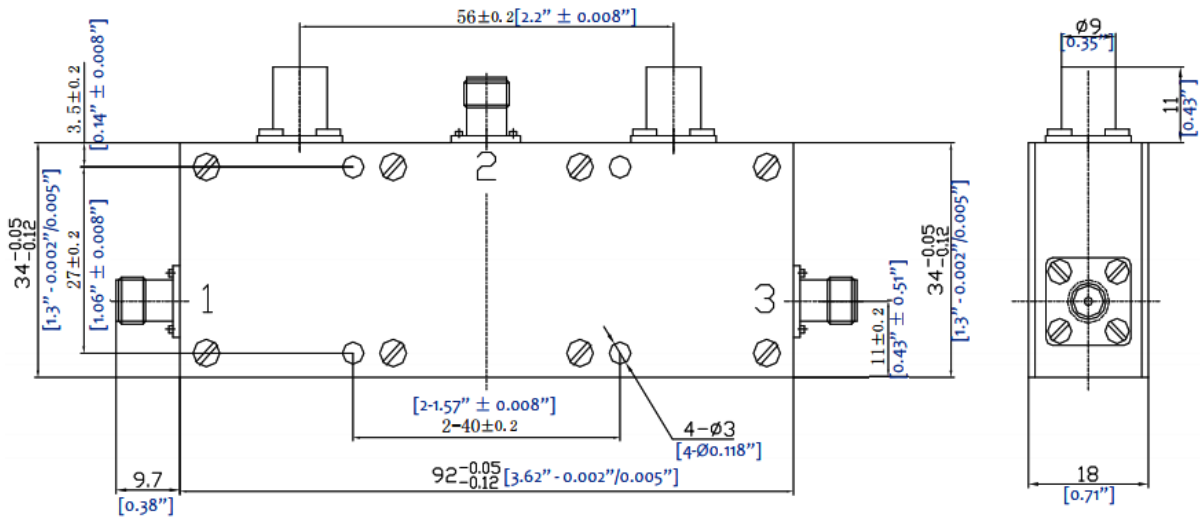
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	6.0000 GHz	-20.91 dB	
2 ▾	S12	6.0000 GHz	-45.75 dB	
3 ▾	S21	6.0000 GHz	-0.54 dB	
4 ▾	S22	6.0000 GHz	-27.25 dB	
5 ▾	S33	6.0000 GHz	-19.38 dB	

SN:211210

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Nickel
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
RFLC407G4G8	SMA Connectors	4GHz-8GHz Triple Junction Circulator

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