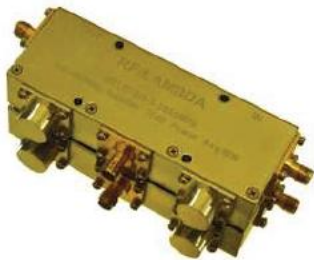


Triple Junction Coaxial Circulator 2GHz - 3GHz



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

Product Description

RFLC-313-3-2.5G is a wide band triple junction coaxial circulator with a frequency range of 2 to 3GHz.

The circulator has an isolation of 40dB. The maximum insertion loss is 1.4dB. The circulator has good isolation performance.

The operating temperature of this product is from -40 to +85°C

Features

- High power handling up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation
- High peak to average handling capability
- 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

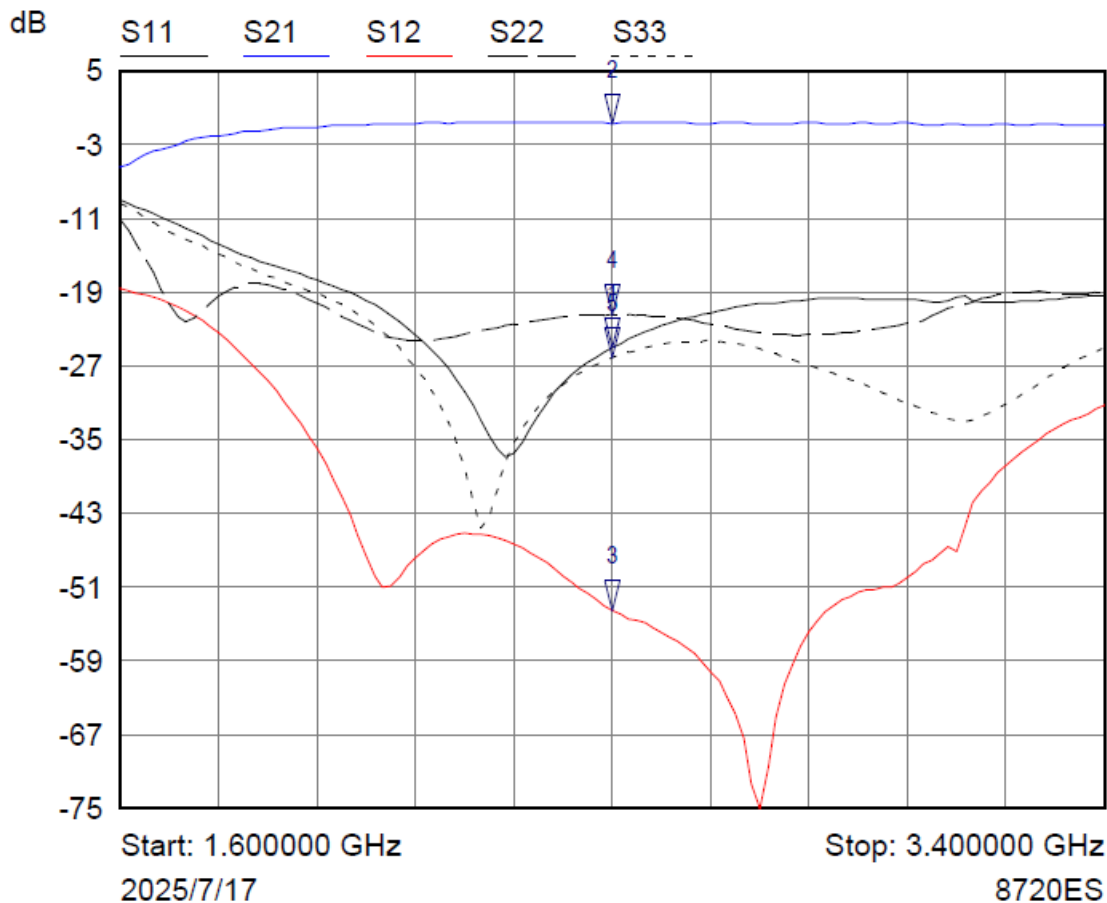
Electrical Specifications($T_A=25^\circ\text{C}$)

Parameter	Min	Typ	Max	Units
Frequency Range		2-3		GHz
Insertion Loss			1.4	dB
Isolation	40			dB
VSWR			1.33	:1
Forward Power (CW)			50	W
Reverse Power (CW)			5	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Connectors		SMA		
Impedance		50		Ω

Environmental Specifications and Test Standards

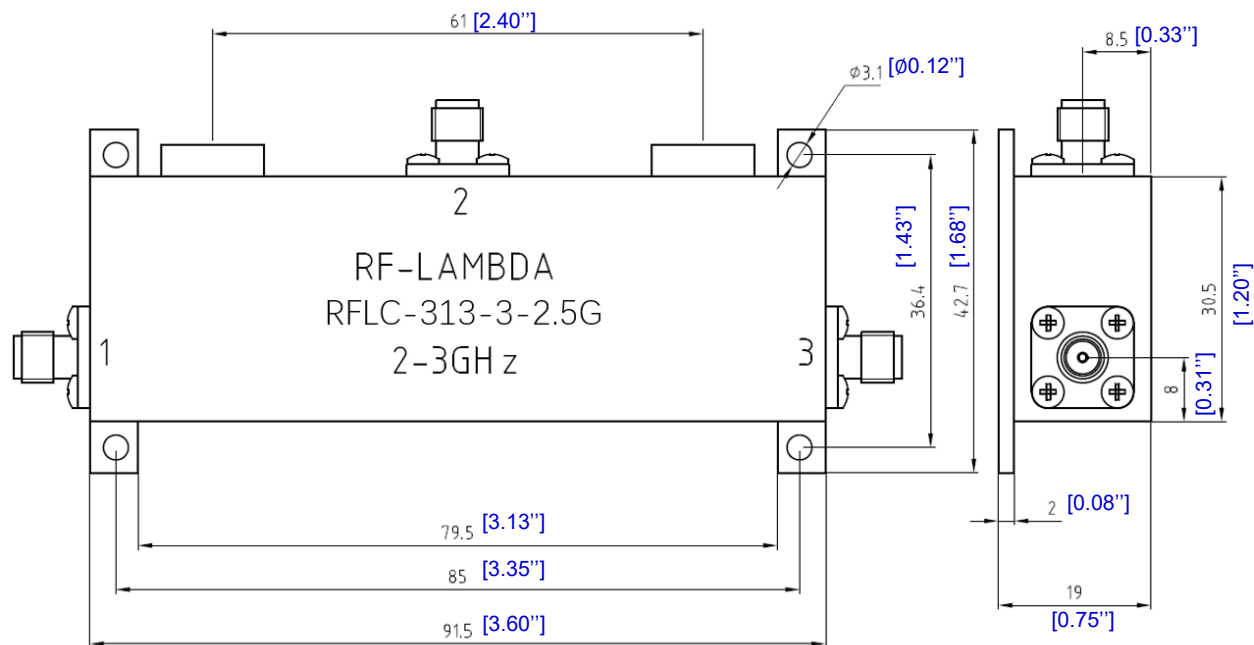
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-55°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	2.500000 GHz	-25.0496 dB	
2 ▾	S21	2.500000 GHz	-0.6758 dB	
3 ▾	S12	2.500000 GHz	-53.5614 dB	
4 ▾	S22	2.500000 GHz	-21.4578 dB	
5 ▾	S33	2.500000 GHz	-26.1119 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish : Gold Plated
3. All dimensions are in millimeters [inches]
4. Tolerance $\pm 0.25(0.01)$, unless otherwise specified.

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
RFLC-313-3-2.5G	Standard	2GHz-3GHz Triple Junction Coaxial Circulator

Important Notice

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