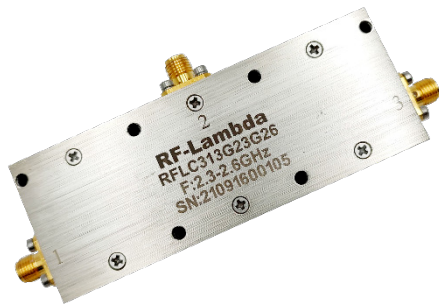


Triple Junction Coaxial Circulator 2.3GHz-2.6GHz



Product Description

The RFLC313G23G26 is a triple junction coaxial circulator with a frequency range of 2.3 to 2.6GHz.

The circulator has a typical isolation of 41dB. The maximum insertion loss is 0.5dB.

The circulator input and output connectors are SMA Female.

Features

- High power handling up to 50W
- 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°C)

| Parameter | Min. | Typ. | Max. | Units |
|-------------------------------|------|--|------|-------|
| Frequency Range | | 2.3-2.6 | | GHz |
| Insertion Loss (Port 1→2 2→3) | | 0.5 | 0.6 | dB |
| Isolation (Port 2→1 3→2) | 40 | 41 | | dB |
| Isolation(Port 1← → Port 3) | 20 | 21 | | dB |
| VSWR | | 1.20 | 1.25 | :1 |
| Forward Power | | | 50 | W |
| Reverse Power | | | 5 | W |
| Rotation | | Clockwise | | |
| Input / Output Connectors | | SMA-Female(Input) – SMA-Female(Output) | | |
| Weight | | 0.51Max. | | lbs. |
| Impedance | | 50 | | Ω |

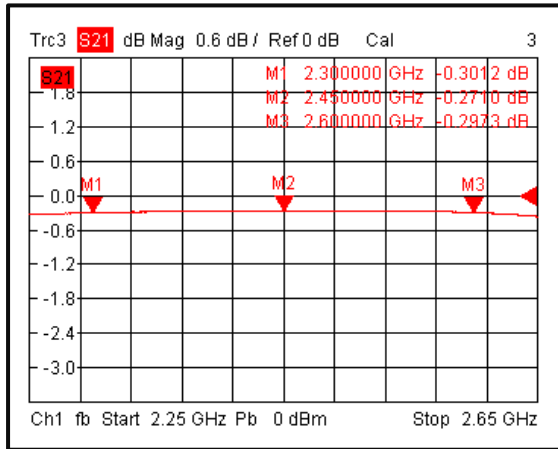
Environmental Specifications and Test Standards

| 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) |

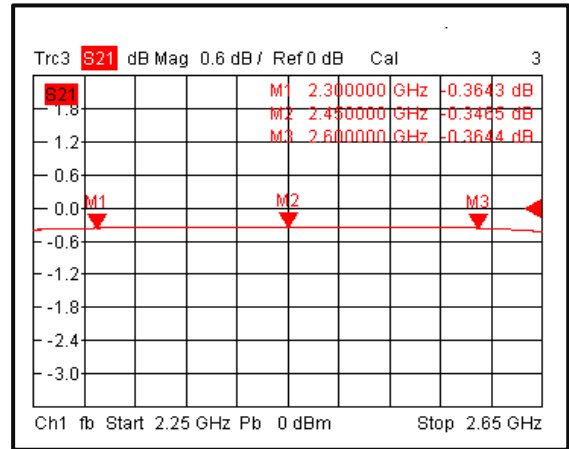
*For vibration testing details please see additional information section.

Typical Performance Plots

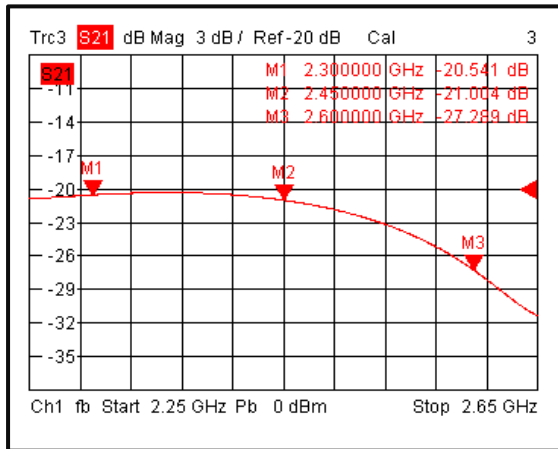
Insertion Loss (Port 1-Port 2)



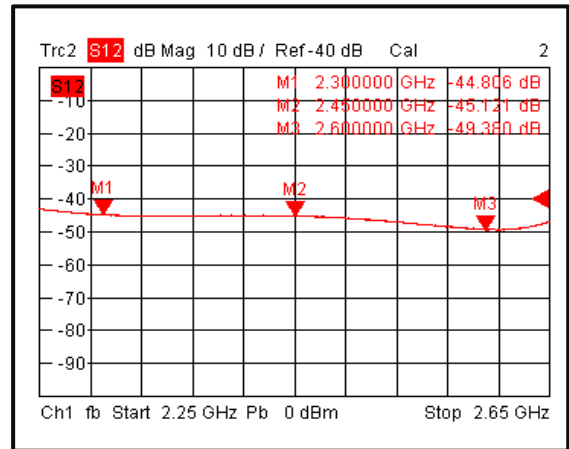
Insertion Loss (Port 2-Port 3)



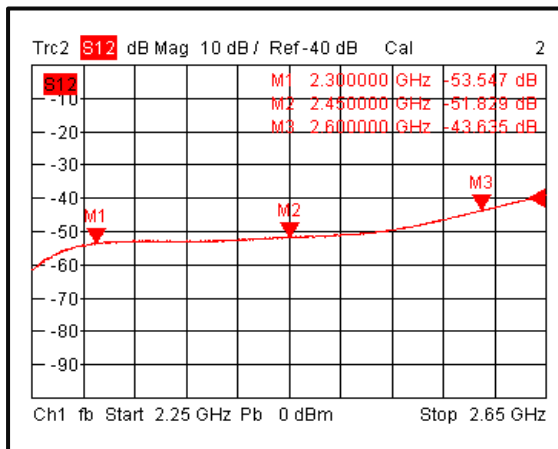
Isolation (Port 3-Port 1)



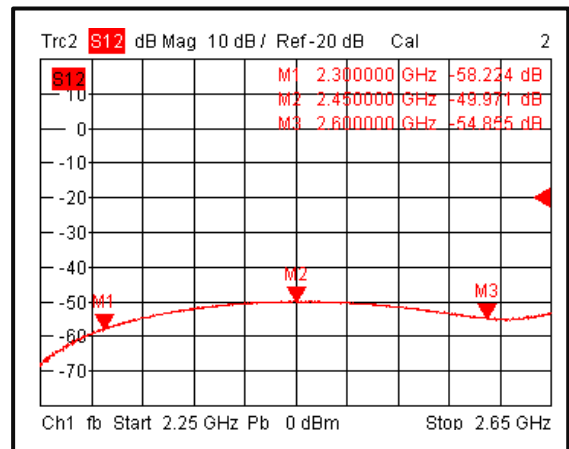
Isolation (Port 2-Port 1)



Isolation (Port 3-Port 2)

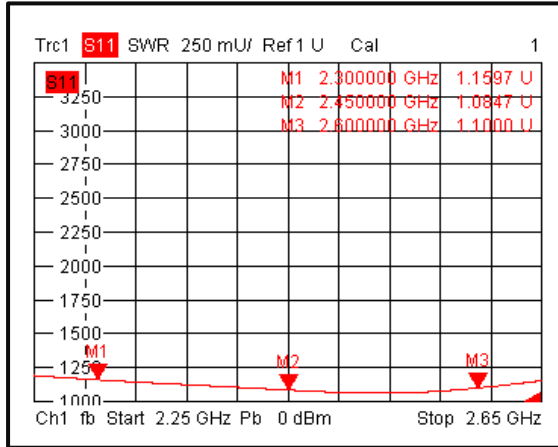


Isolation (Port 1-Port 3)

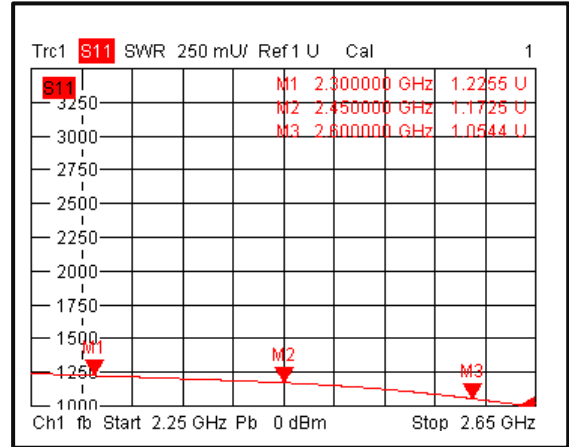


Typical Performance Plots

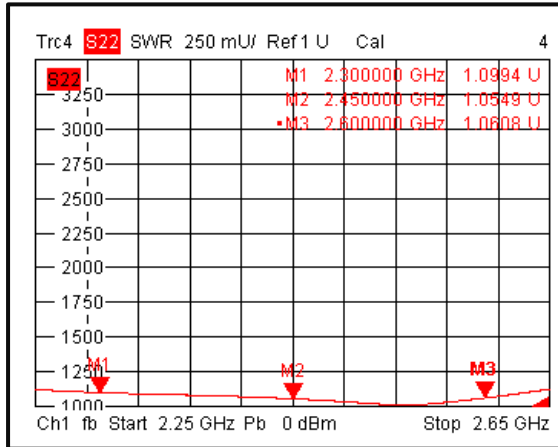
VSWR 1



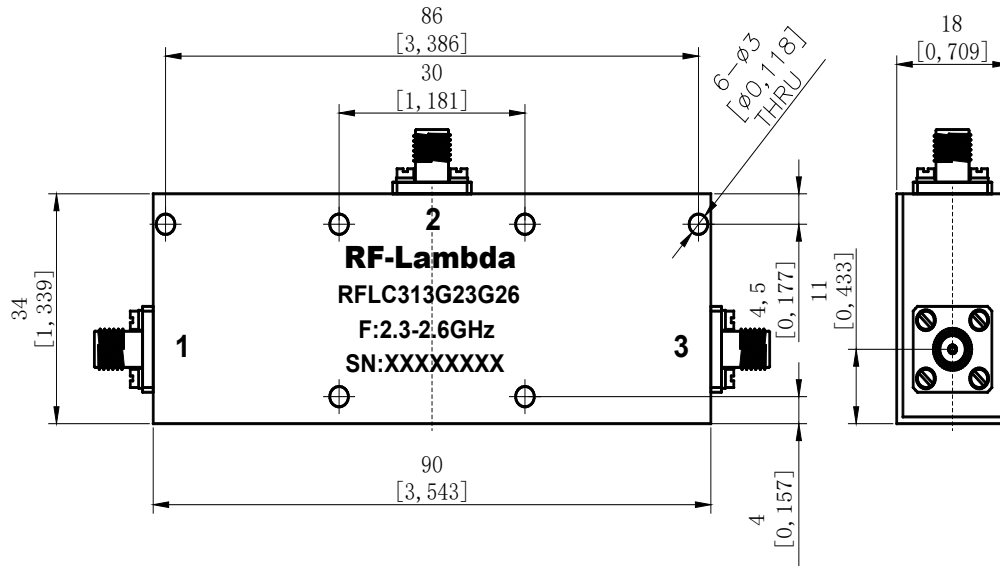
VSWR 2



VSWR3



Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Plating: Nickel
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] 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 |
|---------------|--------------|----------------------------------|
| RFLC313G23G26 | Standard | 2.3GHz-2.6GHz Coaxial Circulator |

Important Notice

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