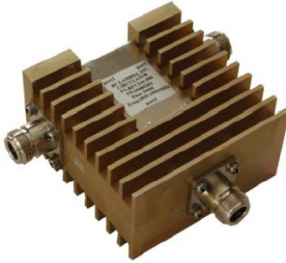


## Wide Band High Power Coaxial Circulator 1.7 – 2.2GHz



Note: Photo is for illustration purposes only.

### Product Description

RFLC301G17G22-NF is a wide band high power coaxial circulator with a frequency range of 1.7 to 2.2GHz.

The circulator has a typical isolation of 20dB. The maximum insertion loss is 0.4dB.

The operating temperature of this product is within -10 to +65°C

### Features

- High power handling up to 1KW
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Removable Heatsinks.

### 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

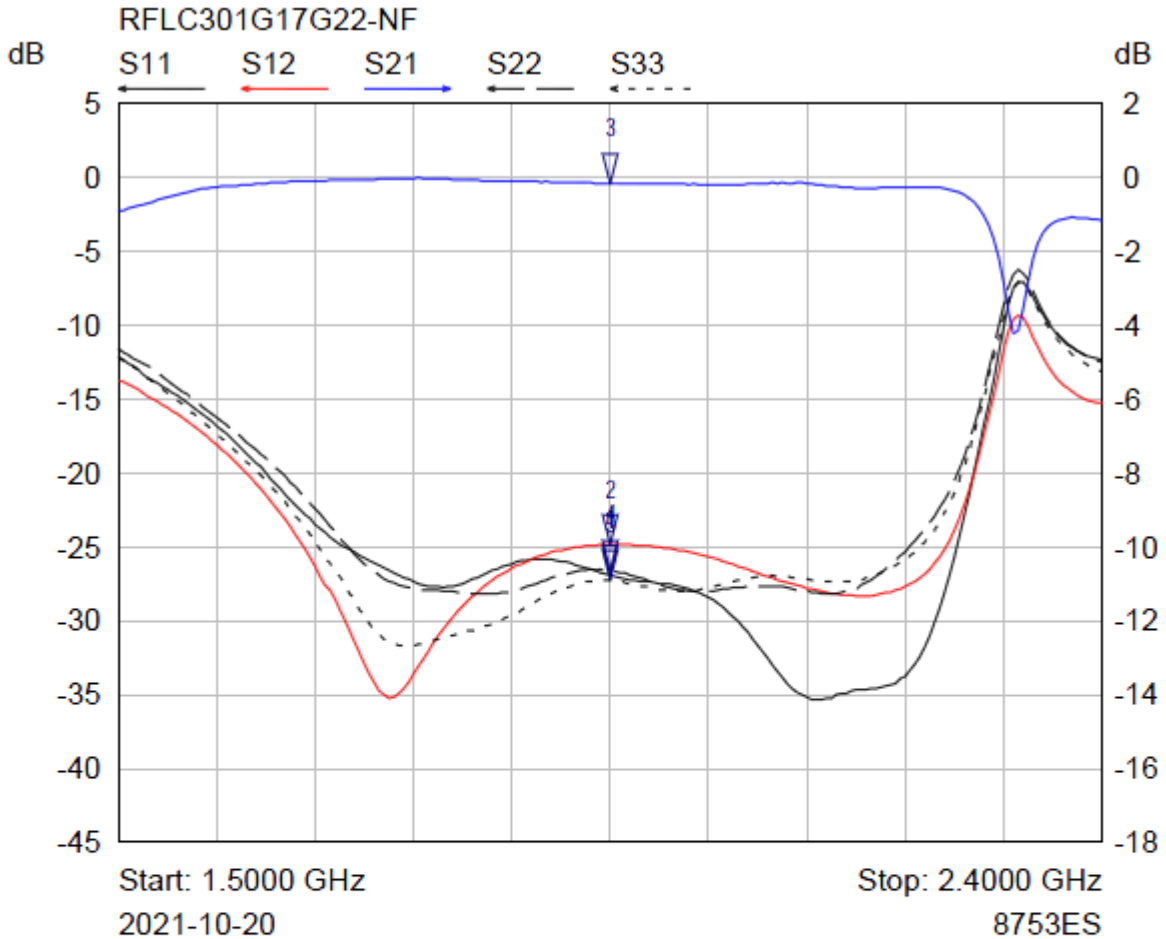
### Electrical Specifications(T<sub>A</sub>=25°C)

| Parameter                 | Min | Typ   | Max  | Units |
|---------------------------|-----|---|------|-------|
| Frequency Range           |     | 1.7~2.2   |      | GHz   |
| Insertion Loss            |     |   | 0.4  | dB    |
| Reverse Isolation         | 20  |   |      | dB    |
| VSWR                      |     |   | 1.22 | :1    |
| Forward Power (CW)        |     |   | 1    | KW    |
| Rotation                  |     | Clockwise (Standard)<br>Counter Clockwise (Special Request) |      |       |
| Input / Output Connectors |     | N-Female  |      |       |
| Weight                    |     | -----   |      | lbs.  |
| Impedance                 |     | 50  |      | Ω     |

**Environmental Specifications and Test Standards**

| Parameter                         | Description   |
|-----------------------------------|---|
| Operational Temperature           | -10°C to +65°C<br>(Case Temperature)  |
| Storage Temperature               | -45°C to +85°C  |
| Thermal Shock                     | -40°C → +85°C<br>(5 Cycles / 10 hours)  |
| **Random Vibration                | MIL-STD-202G<br>Table 214-I, Test Condition Letter C<br>1.5 Hours Per Axis  |
| Shock                             | 1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s<br>2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s<br>3. Total 18 times (6 directions, 3 repetitions per direction). |
| Altitude                          | Standard: 30,000 Ft (Epoxy Sealed Controlled Environment)<br>Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)   |
| Hermetically Sealed<br>(Optional) | MIL-STD-883 (For Hermetically Sealed Units)   |

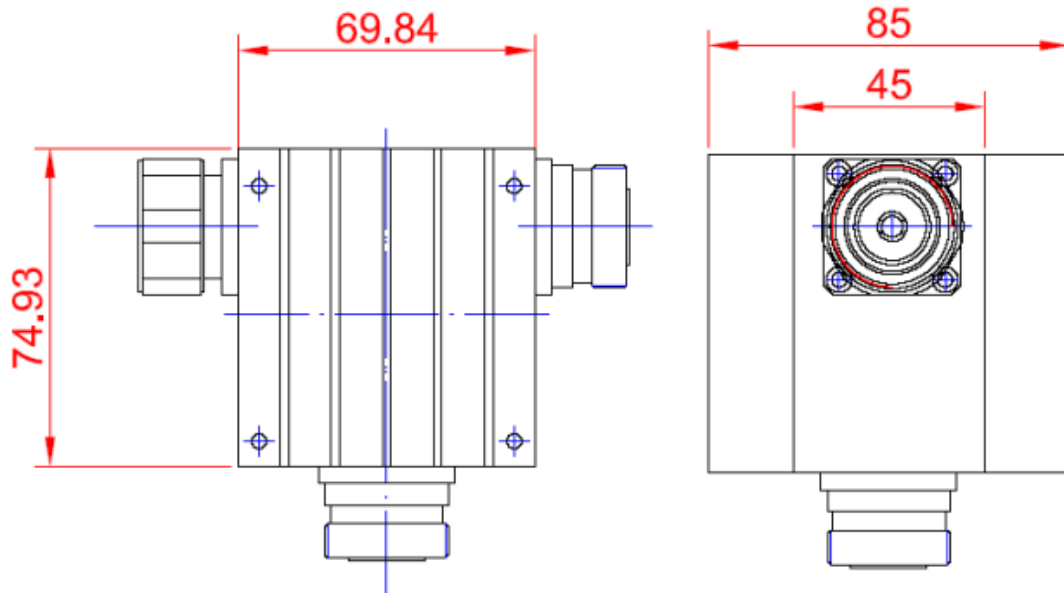
Typical Performance Plots



| Mkr | Trace | X-Axis     | Value     | Notes |
|-----|-------|------------|-----------|-------|
| 1 ▾ | S11   | 1.9500 GHz | -26.93 dB |       |
| 2 ▾ | S12   | 1.9500 GHz | -24.87 dB |       |
| 3 ▾ | S21   | 1.9500 GHz | -0.16 dB  |       |
| 4 ▾ | S22   | 1.9500 GHz | -26.58 dB |       |
| 5 ▾ | S33   | 1.9500 GHz | -27.29 dB |       |

SN:210905

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Natural Conductive Oxidation
3. All dimensions are in millimeters [inches]
4. All connectors are N-Female.

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   |
|------------------|--------------|---|
| RFLC301G17G22-NF | N Connectors | 1.7GHz-2.2GHz Wide Band High Power Coaxial Circulator |

**Important Notice**

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