

## Coaxial 30W 0° 6-Way Power Divider 4GHz-18GHz



### Product Description

RFLT6W4G18GA is a 6-Way power divider with a frequency range of 4 to 18GHz.

The forward power handling of this power divider is 30W. The insertion loss is 1.5dB with a typical isolation of 18dB.

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

### Features

- High power handling up to 30W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

### 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, TA = +25°C

| Parameter                 |                                | Min                                       | Typ       | Max  | Units |
|---------------------------|--------------------------------|-------------------------------------------|-----------|------|-------|
| Frequency Range           |                                | 4                                         |           | 18   | GHz   |
| Nominal Splitter Loss     |                                |                                           | 7.8       |      | dB    |
| Insertion Loss            |                                |                                           | 1.5       | 2.2  | dB    |
| Isolation                 |                                | 16                                        | 18        |      | dB    |
| Input VSWR                |                                |                                           | 1.6       | 1.8  | : 1   |
| Output VSWR               |                                |                                           | 1.4       | 1.5  | : 1   |
| Amplitude Imbalance       |                                |                                           | ±0.5      | ±0.7 | dB    |
| Phase Imbalance           |                                |                                           | ±5        | ±8   | deg   |
| Power Rating              | Forward Power                  |                                           | 30        |      | W     |
|                           | Reverse Power                  |                                           | 1         |      | W     |
|                           | Peak Power                     | 300<br>(10% Duty Cycle, 1 us Pulse Width) |           |      | W     |
| Weight                    |                                |                                           | 0.45 Max. |      | lbs   |
| Impedance                 |                                |                                           | 50        |      | Ω     |
| Input / Output Connectors |                                | SMA-Female(Input) – SMA-Female(Output)    |           |      |       |
| Package                   | Epoxy Sealed (Standard)        |                                           |           |      |       |
|                           | Hermetically Sealed (Optional) |                                           |           |      |       |

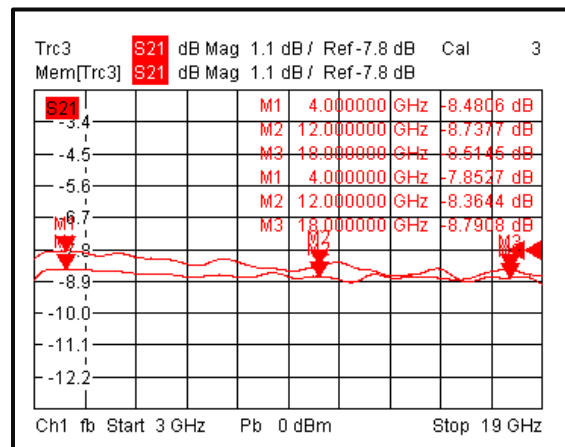
## Environmental Specifications and Test Standards

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

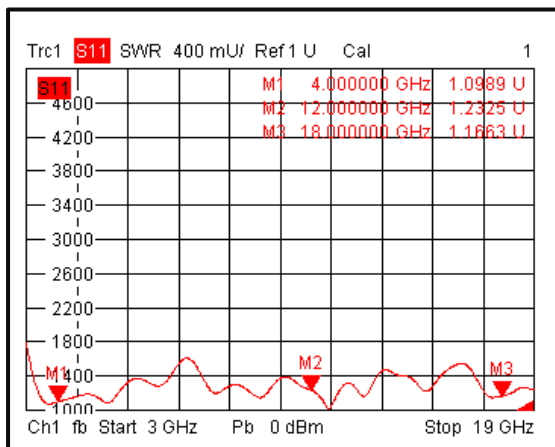
\*For vibration testing details please see additional information section.

Typical Performance Plots

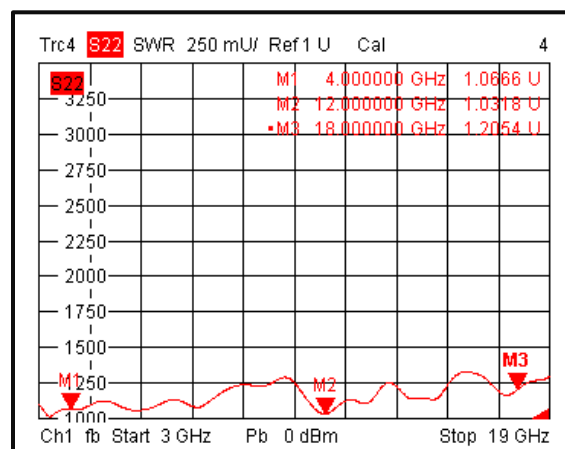
Loss & Amplitude Imbalance



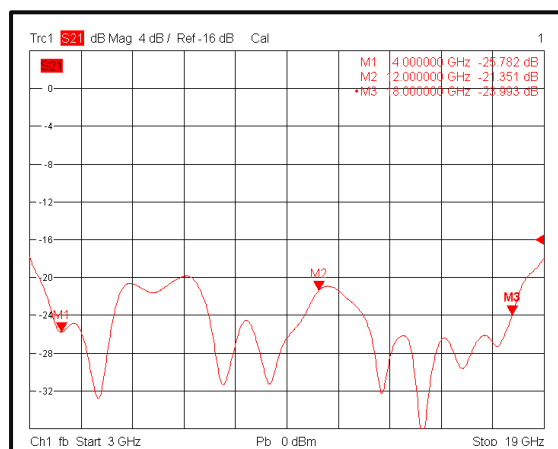
Input VSWR



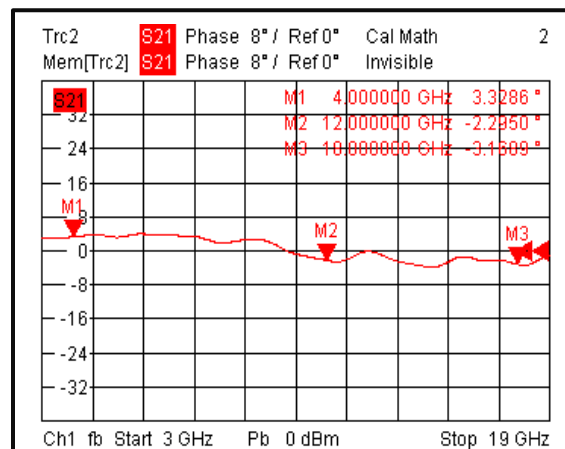
Output VSWR



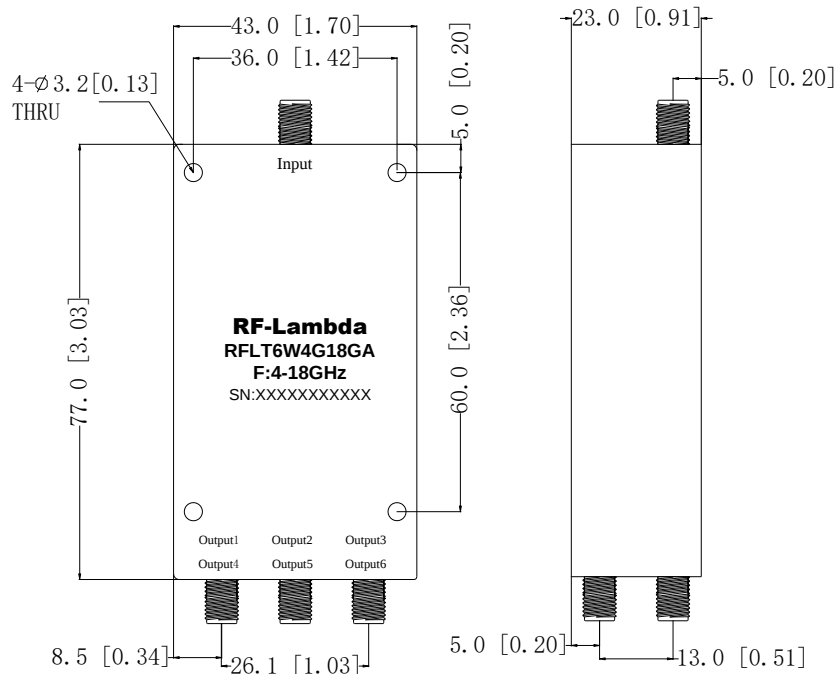
Isolation



Phase Imbalance

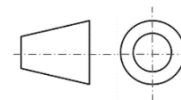


**Outline Drawing**



**Notes:**

1. Package Material: Aluminum
2. Finish: Blue Paint
3. All dimensions are in millimeters [inches].
4. Outline Tolerances  $\pm 0.5$  [0.02], Mounting Hole Tolerances  $\pm 0.2$  [0.008] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



**Additional Information**

**Documentation**

Connector Torque Specifications

[https://www.rflambda.com/pdf/Torque\\_Specifications.pdf](https://www.rflambda.com/pdf/Torque_Specifications.pdf)

Random Vibration Test Standard

[https://www.rflambda.com/pdf/rflambda\\_random\\_vibration\\_MIL-STD-202G.pdf](https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf)

**Webpage**

Ordering Information

| Part Number  | Modification | Description                    |
|--------------|--------------|--------------------------------|
| RFLT6W4G18GA | Standard     | 4GHz-18GHz 6-Way Power Divider |

Important Notice

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