

## Coaxial 20W 0° 4-Way Power Divider 0.5GHz-18GHz



### Product Description

RFLT4W5M18GB is a 4-Way power divider with a frequency range of 0.5 to 18GHz.

The forward power handling of this power divider is 20W. The Insertion Loss is 2.0dB with a typical isolation of 20dB.

The working temperature of this product is between - 40°C and + 85°C.

### Features

- High power handling up to 20W
- 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	Min	Typ	Max	Min	Typ	Max	Units	
Frequency Range	0.5		0.6	0.6		8	8		18	GHz	
Nominal Splitter Loss		6			6			6		dB	
Insertion Loss		0.8	0.9		1.3	1.5		2.0	2.5	dB	
Isolation	15	16		18	20		16	18		dB	
Input VSWR		2.0	2.1		1.5	1.6		1.55	1.65	: 1	
Output VSWR		1.25	1.35		1.25	1.35		1.3	1.4	: 1	
Amplitude Imbalance		±0.2	±0.3		±0.2	±0.3		±0.3	±0.4	dB	
Phase Imbalance		±3	±5		±3	±5		±6	±8	deg	
Power Rating	Forward Power				20				W		
	Reverse Power				0.5				W		
	Peak Power				200 (10% Duty Cycle, 1 us Pulse Width)				W		
Weight					0.68 Max.						lbs
Impedance					50						Ω
Input / Output Connectors					SMA-Female(Input) – SMA-Female(Output)						
Package					Epoxy Sealed (Standard)						
					Hermetically Sealed (Optional)						

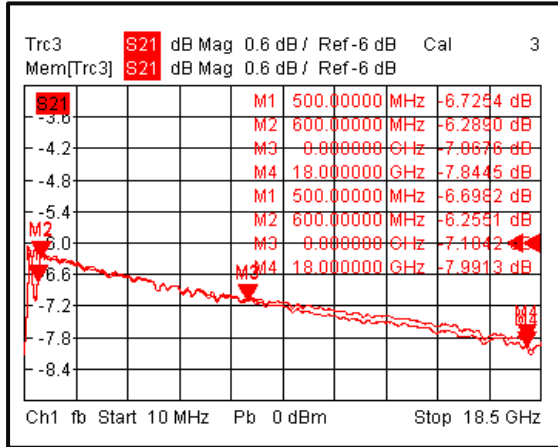
**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°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)

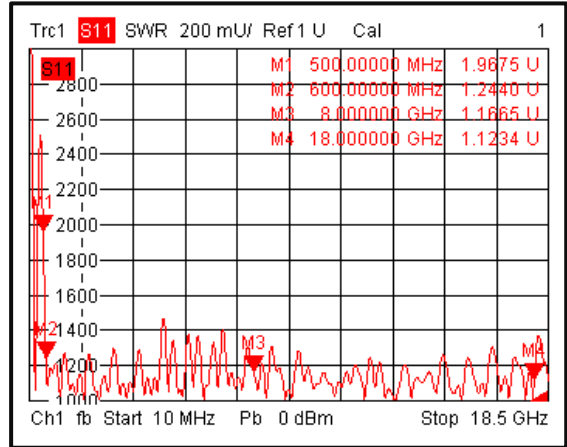
\*For vibration testing details please see additional information section.

Typical Performance Plots

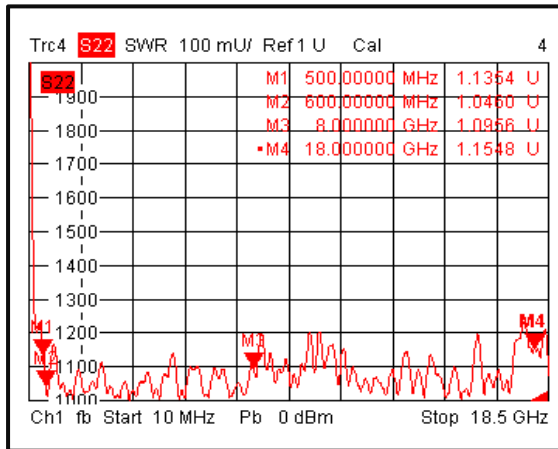
Loss & Amplitude Imbalance



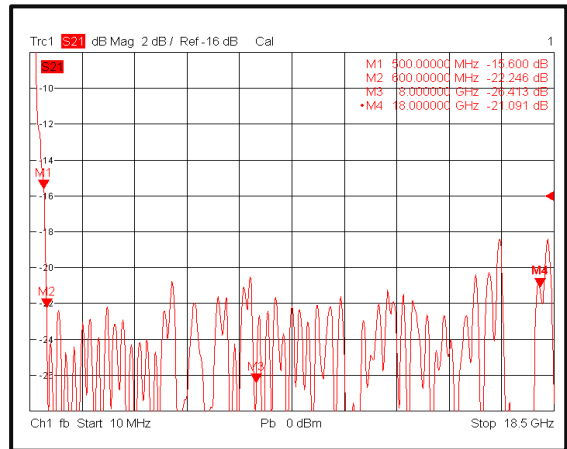
Input VSWR



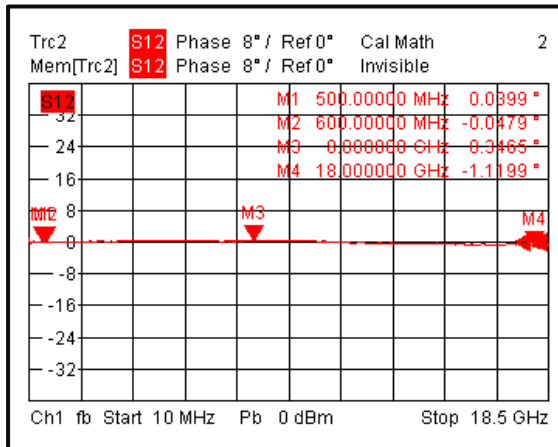
Output VSWR



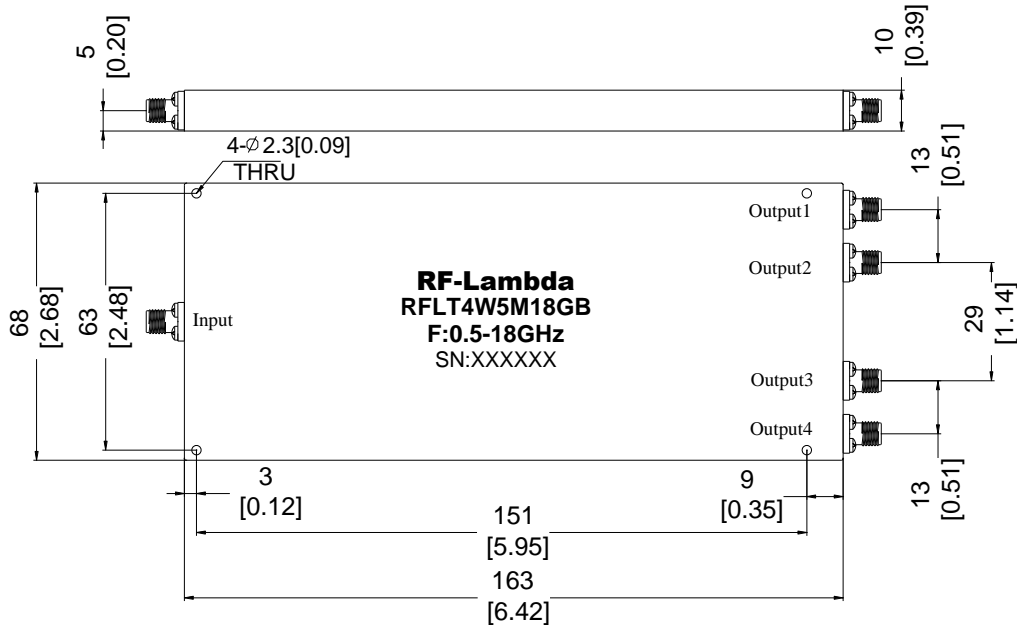
Isolation



Phase Imbalance

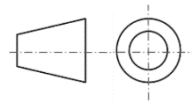


**Outline Drawing**



**Notes:**

1. Package Material: Aluminum
2. Finish: Blue Painted
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	Webpage
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
RFLT4W5M18GB	Standard	0.5GHz-18GHz 4-Way Power Divider

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