

## Coaxial 0.5W 0° 2-Way Power Divider DC-50GHz



### Product Description

RFLT2WDC50G is 2-way power divider with a frequency range of DC to 50GHz.

The forward power of this power divider is 0.5W. The insertion loss is 6.8dB with a typical isolation of 12dB.

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

### Features

- High power handling up to 0.5W
- 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	Units
Frequency Range		DC		26.5	26.5		50	GHz
Insertion Loss			6.8	7.0		7.3	7.8	dB
Isolation			12			14		dB
Input VSWR			1.4	1.8		1.4	1.8	: 1
Output VSWR			1.9	2.2		2.5	3.0	: 1
Amplitude Imbalance			0.2	0.4		0.4	0.6	dB
Phase Imbalance			3	5		4	6	deg
Power Rating	Forward Power			0.5				W
	Peak Power			5				W (10% Duty Cycle, 1 us Pulse Width)
Weight				0.05 Max.				lbs
Impedance				50				Ω
Input / Output Connectors			2.4mm-Female(Input) – 2.4mm-Female(Output)					
Package			Epoxy Sealed (Standard) Hermetically Sealed (Optional)					

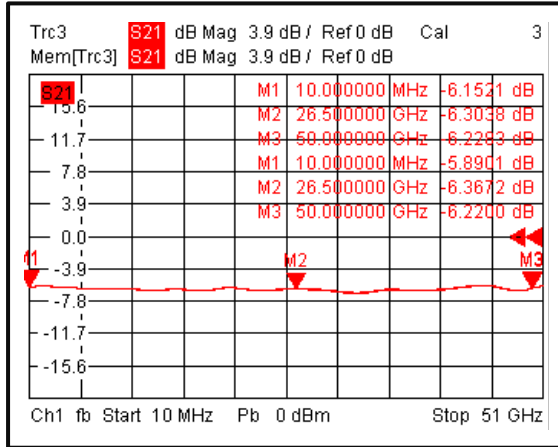
**Environmental Specifications and Test Standards**

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)

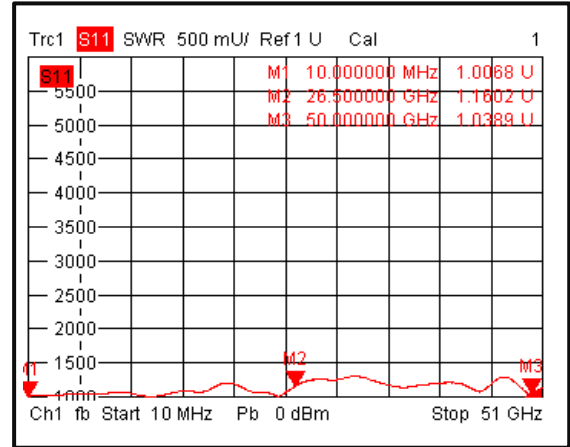
\*For vibration testing details please see additional information section.

Typical Performance Plots

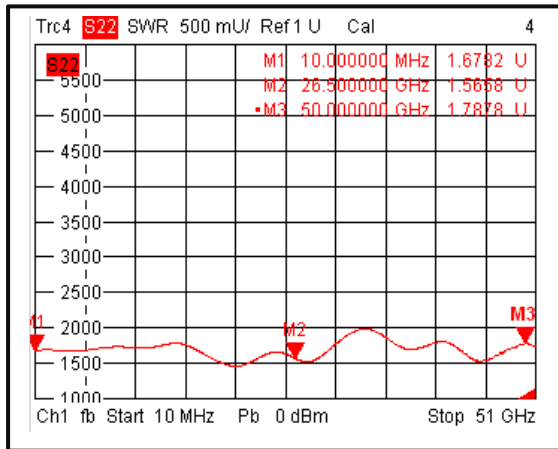
Loss & Amplitude Imbalance



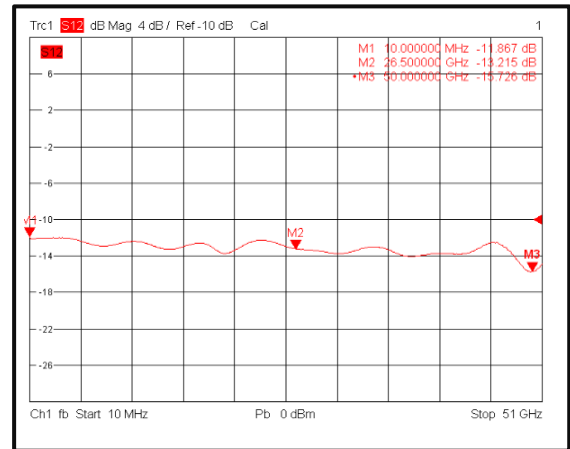
Input VSWR



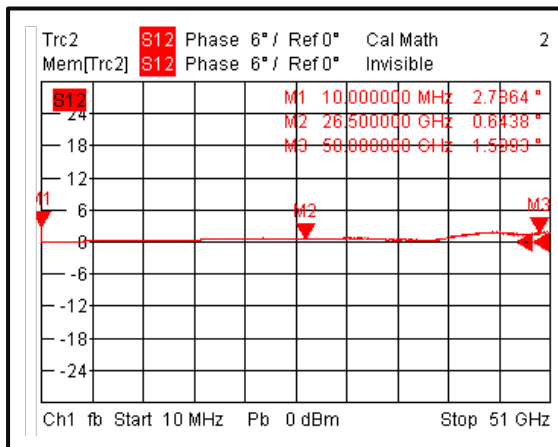
Output VSWR



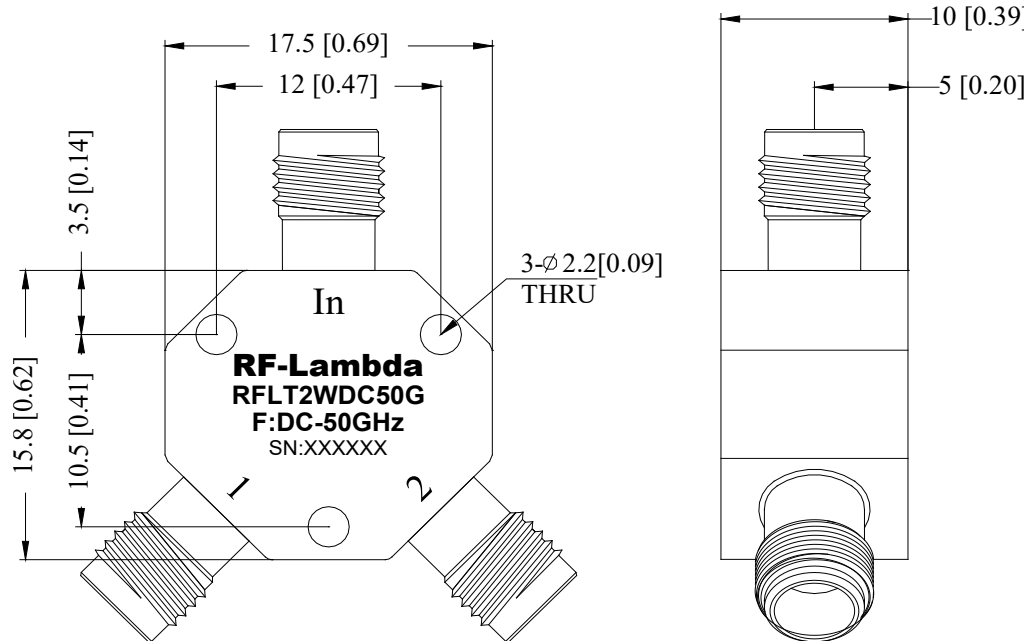
Isolation



Phase Imbalance



**Outline Drawing**



Notes:

1. Package Material: Aluminum
2. Finish: 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.



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
RFLT2WDC50G	connectors 2.4mm-Female	DC-50GHz 2-Way Power Divider

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