

Coaxial Cavity Dual Frequency Combiner 2025MHz-2298MHz



Product Description

RFDU2G2GC is a coaxial cavity dual frequency combiner with a frequency range of 2025 to 2298MHz.

The power rating is 50W. The insertion loss is 0.6dB with a minimum rejection of 80dB.

The working temperature of this product is between - 25°C and + 70°C.

Features

- High Isolation
- Low Insertion Loss
- Excellent Temperature Stability
- Miniaturization

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	RX			TX			Units
	Min	Typ	Max	Min	Typ	Max	
Frequency Range	2025		2110	2202		2298	MHz
Return loss	18	19		18	19		dB
Insertion Loss		0.6	0.8		0.6	0.8	dB
Pass Band Ripple		0.3	0.5		0.3	0.5	dB
Port Isolation	80	85		80	85		dB
Power Handling			50				Watts
Weight			0.66Max.				lbs
Impedance			50				Ω
Input / Output Connectors	SMA-Female(Input) – SMA-Female(Output)						
Package	Epoxy Sealed (Standard)						
	Hermetically Sealed (Optional)						

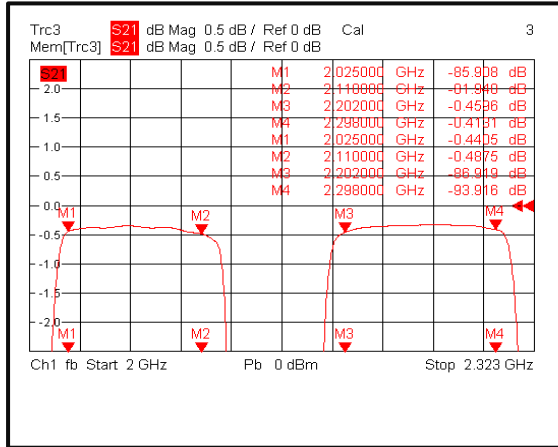
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-25°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-25°C → +70°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)

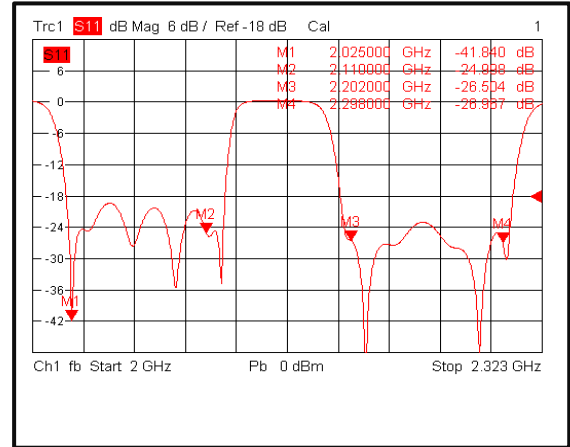
**For vibration testing details please see additional information section.

Typical Performance Plots

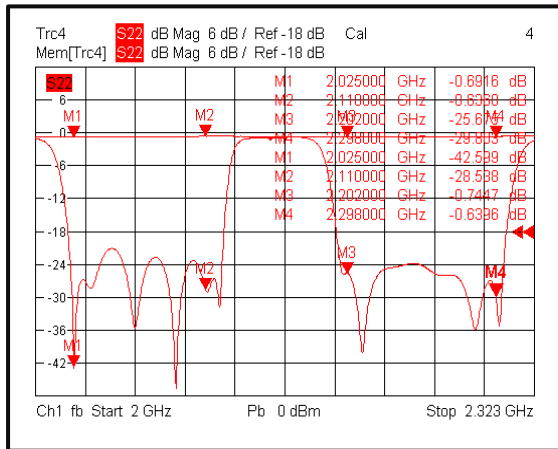
Insertion Loss



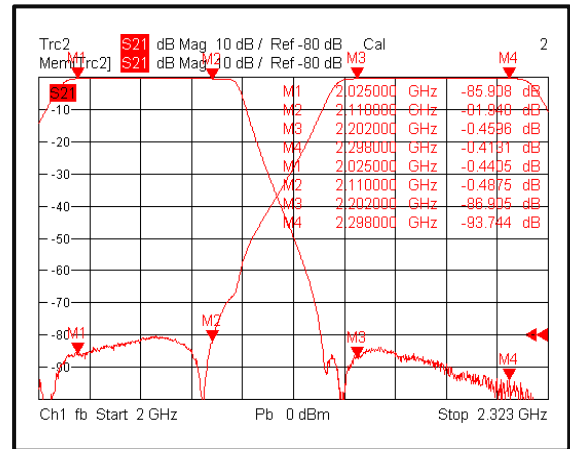
VSWR



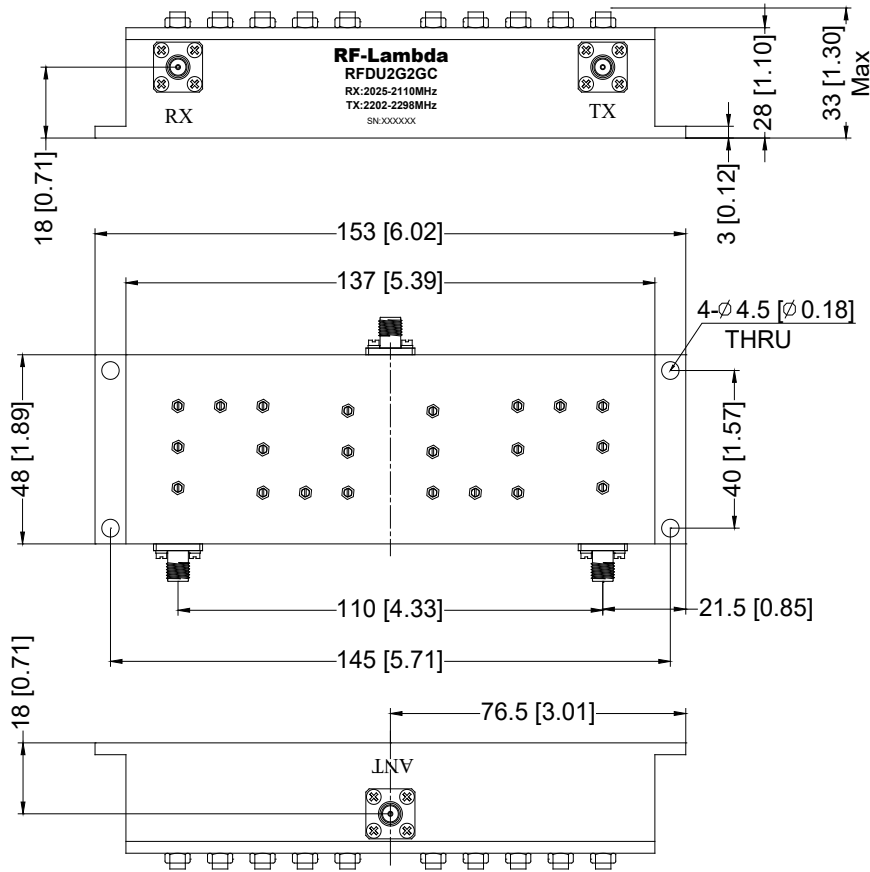
VSWR



Rejection & Isolation



Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: Blue Painted
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 1.0 [0.04], Mounting Hole Tolerances ± 0.5 [0.02] unless otherwise specified.



Additional Information

Documentation	Webpage
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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
RFDU2G2GC	Standard	2025-2298MHz Coaxial Cavity Dual Frequency Combiner

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