

Coaxial Cavity Dual Frequency Combiner 2.025-2.12 & 2.2-2.39GHz



Product Description

RFDU2G2GE is a coaxial cavity dual frequency combiner with a frequency range of 2.025 to 2.39GHz.

The power rating is 100W. The insertion loss is 0.6dB with a minimum rejection of 70dB.

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

Features

- High Isolation
- Low Insertion Loss
- Excellent Temperature Stability

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	2.2		2.39	2.025		2.12	GHz
VSWR		1.3	1.4		1.3	1.4	: 1
Insertion Loss		0.5	0.6		0.5	0.6	dB
Pass band Ripple		0.2	0.4		0.25	0.4	dB
Rejection		>70 @TX			>70 @RX		dB
Power Handling			100				Watts
Weight			1.1Max.				lbs
Impedance			50				Ω
Input / Output Connectors	SMA-Female(Input) – SMA-Female(Output)						
Package	Epoxy Sealed (Standard)						
	Hermetically Sealed (Optional)						

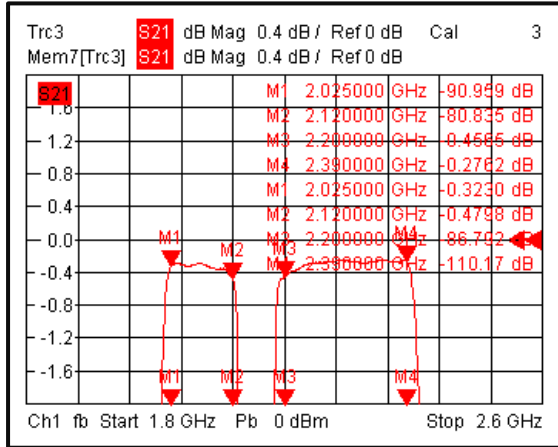
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C → +105°C
Thermal Shock	-40°C to +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)

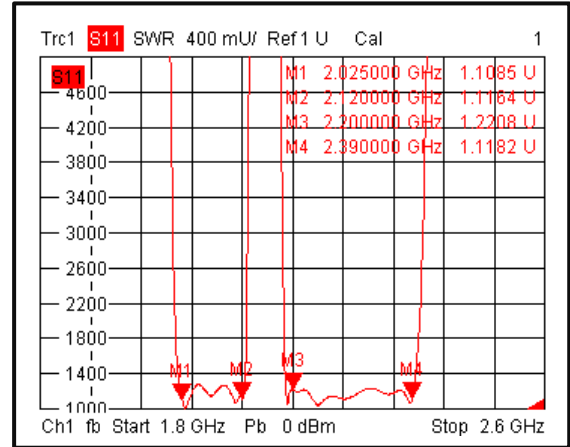
**For vibration testing details please see additional information section.

Typical Performance Plots

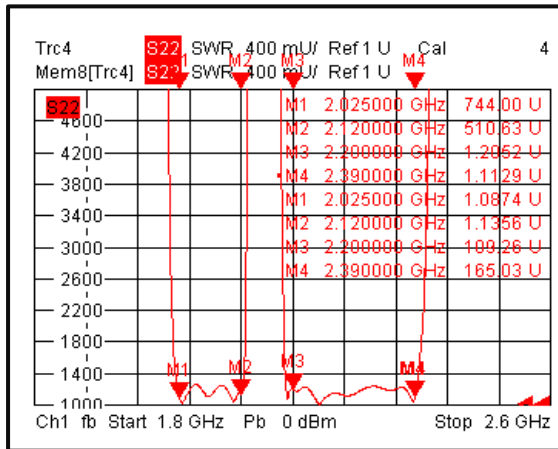
Insertion Loss



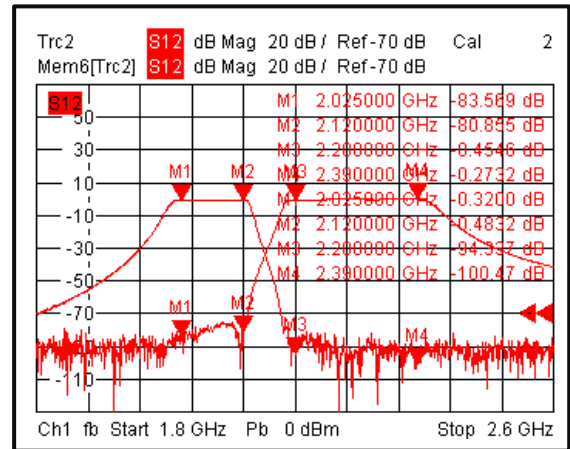
VSWR



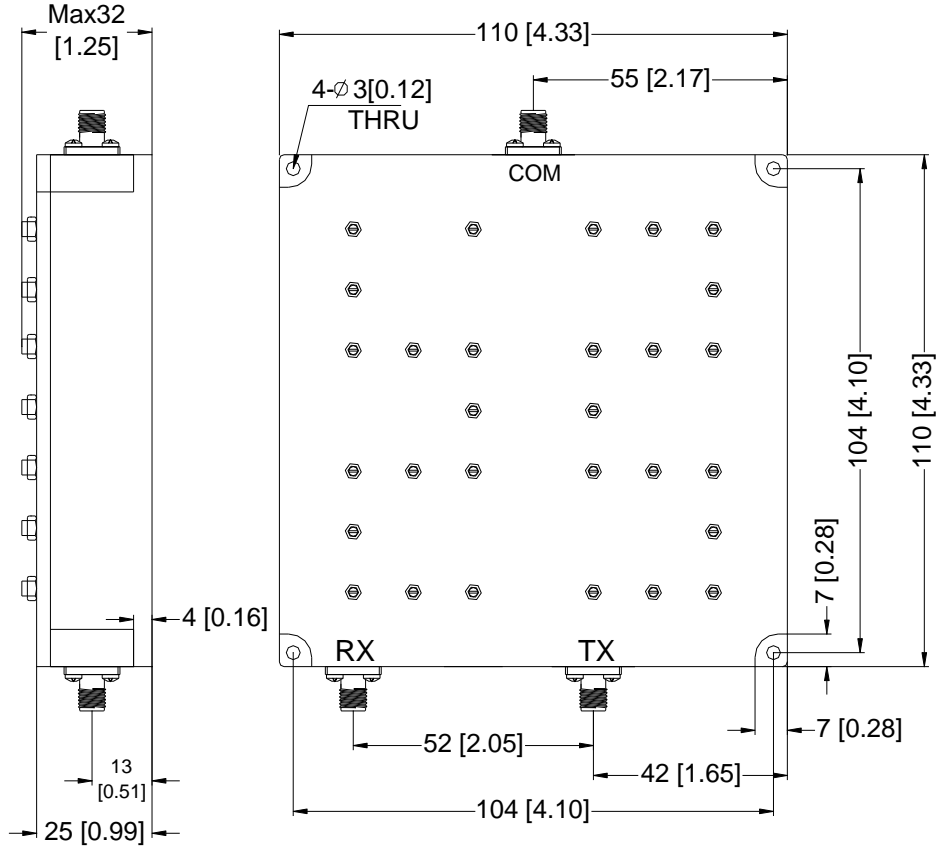
VSWR



Rejection & Isolation

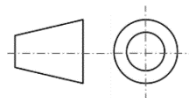


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: Blue Paint
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 1.0 [0.04], Mounting Hole Tolerances ± 0.5 [0.02] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



Additional Information

Documentation	Webpage
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
RFDU2G2GE	Standard	2.025GHz-2.39GHz Coaxial Cavity Dual Frequency Combiner

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