

## Coaxial Cavity Dual Frequency Combiner 2500MHz-2690MHz



### Product Description

RFDULTE0016 is a coaxial cavity dual frequency combiner with a frequency range of 2500 to 2690MHz.

The power rating is 100W. The insertion loss is 0.5dB with a minimum isolation of 80dB.

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

### Features

- Cavity Combiner
- 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	2500		2570	2620		2690	MHz
Return loss	20	21		20	21		dB
Insertion Loss		0.5	0.7		0.5	0.7	dB
Pass Band Ripple		0.3			0.3		dB
Port Isolation	80	85		80	85		dB
Power Handling			100				Watts
Weight			1.4 Max.				lbs
Impedance			50				Ω
Input / Output Connectors	SMA-Female(Input) – SMA-Female(Output)						
Package	Epoxy Sealed (Standard)						
	Hermetically Sealed (Optional)						

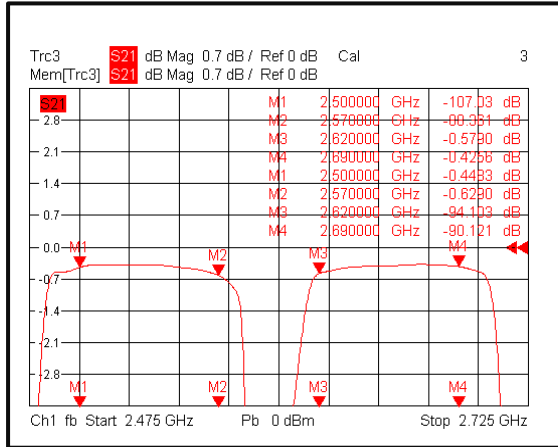
**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-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)

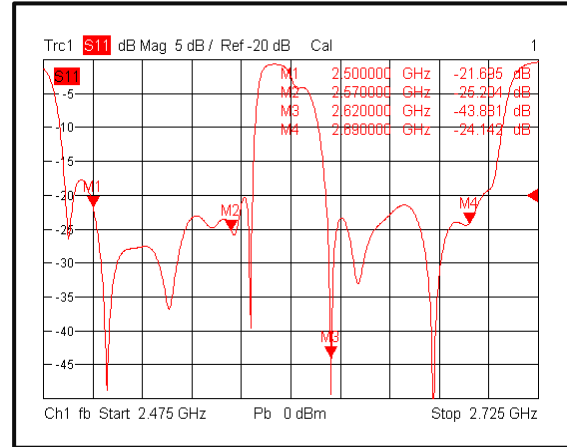
\*\*For vibration testing details please see additional information section.

**Typical Performance Plots**

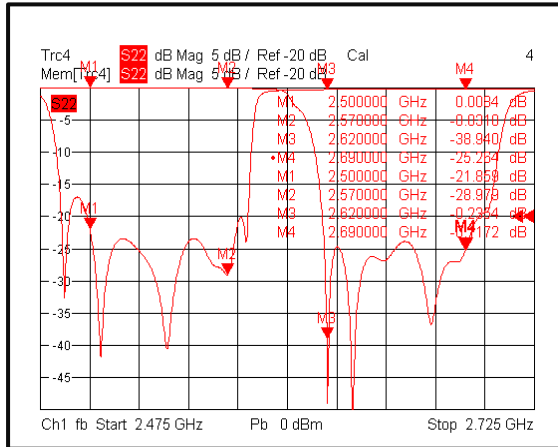
**Insertion Loss**



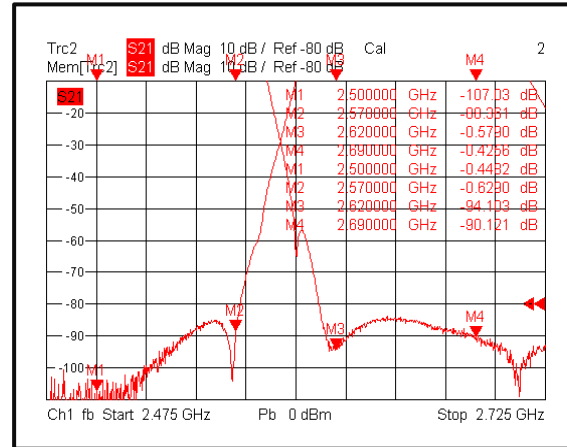
**VSWR**



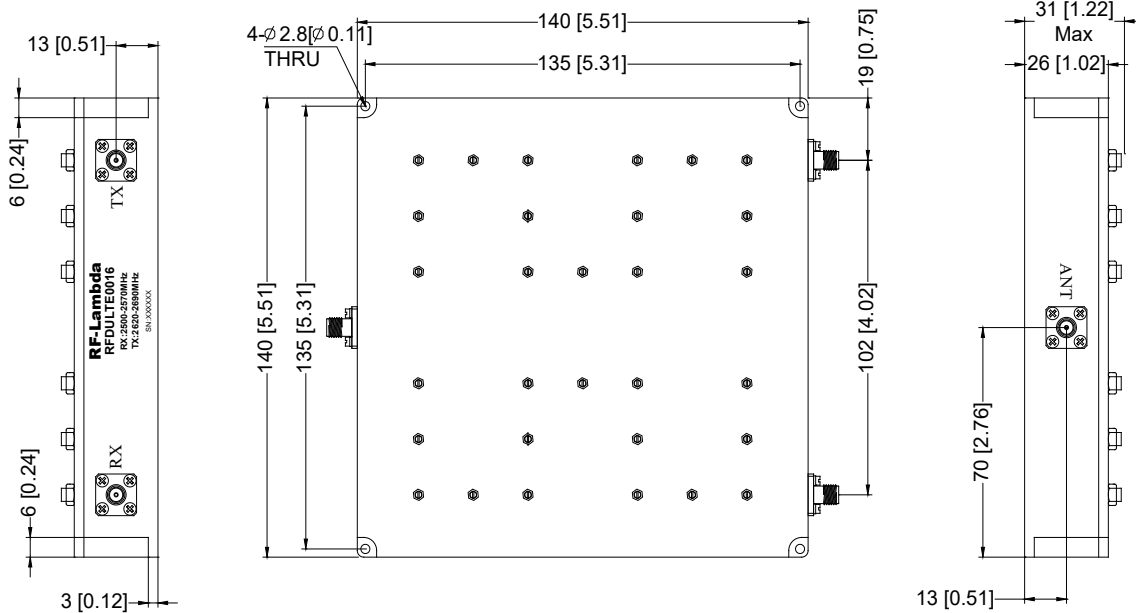
**VSWR**



**Rejection & Isolation**



**Outline Drawing**



Notes:

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



Additional Information

Documentation	Webpage
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Connector Torque Specifications

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

**Ordering Information**

Part Number	Modification	Description
RFDULTE0016	Standard	2500-2690MHz Coaxial Cavity Dual Frequency Combiner

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