

Coaxial Cavity Dual Frequency Combiner 824MHz-894MHz



Product Description

RFDULTE0014 is a coaxial cavity dual frequency combiner with a frequency range of 824 to 894MHz.

The power rating is 100W. The insertion loss is 1.0dB with a minimum rejection of 80dB.

The working temperature of this product is between - 20°C and + 60°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	824 - 849			869 - 894			MHz
Insertion Loss		0.7	1.0		0.7	1.0	dB
Pass Band Ripple		0.5			0.5		dB
VSWR			1.25			1.25	: 1
Rejection	@869-894MHz	80	82				dB
	@824-849MHz			80	85		dB
Power(CW)			100				W
Weight			4.7 Max.				lbs
Impedance			50				Ω
Input / Output Connectors	SMA-Female(Input) – SMA-Female(Output)						
Package	Epoxy Sealed (Standard)						
	Hermetically Sealed (Optional)						

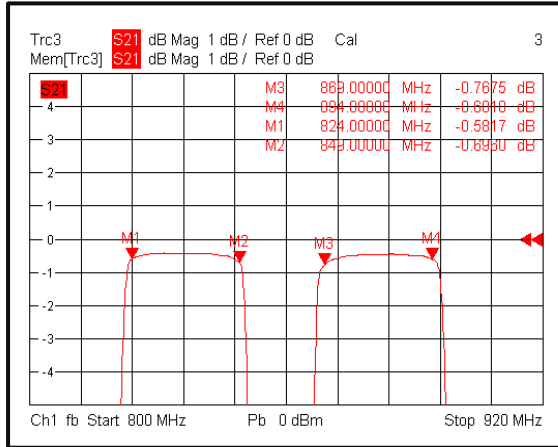
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +60°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-20°C → +60°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)

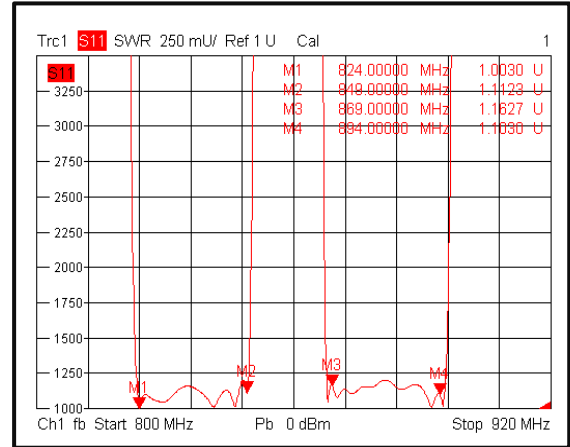
**For vibration testing details please see additional information section.

Typical Performance Plots

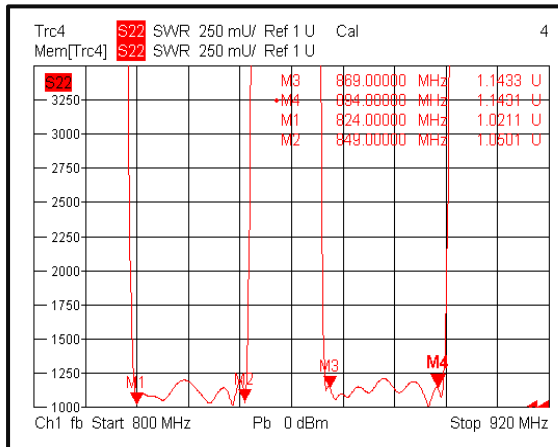
Insertion Loss



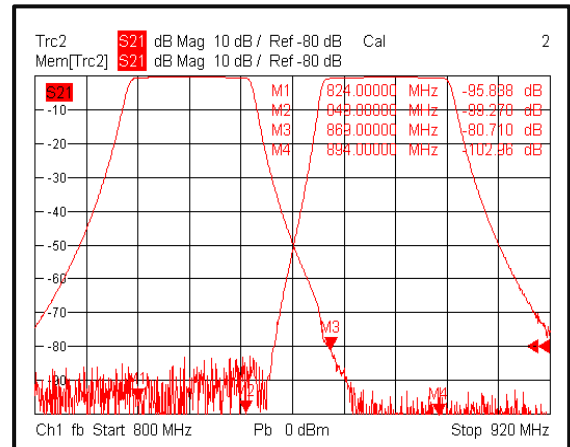
VSWR



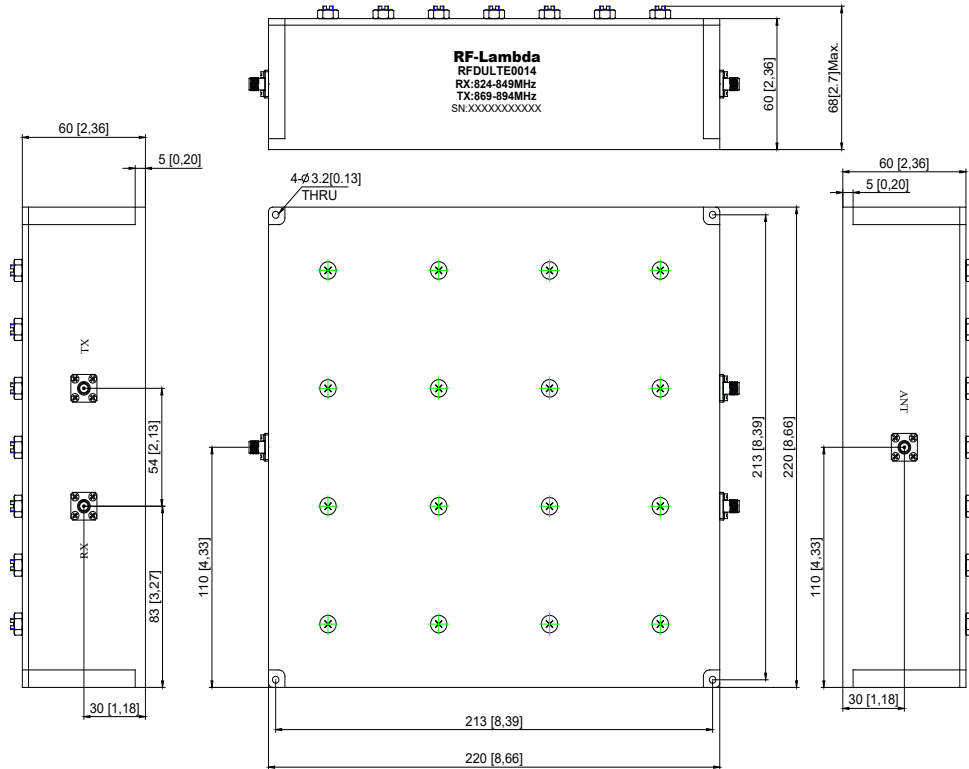
VSWR



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
RFDULTE0014	Standard	824-894MHz Coaxial Cavity Dual Frequency Combiner

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