

Coaxial Cavity Dual Frequency Combiner 452MHz-468MHz



Note: The photo is for illustration purposes only.
Please refer to the outline drawing.

Product Description

RFDULTE0039 is a coaxial cavity dual frequency combiner with a frequency range of 452 to 468MHz.

The power rating for this filter is 100W. The insertion loss is 2.5dB with a minimum rejection of 70dB.

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

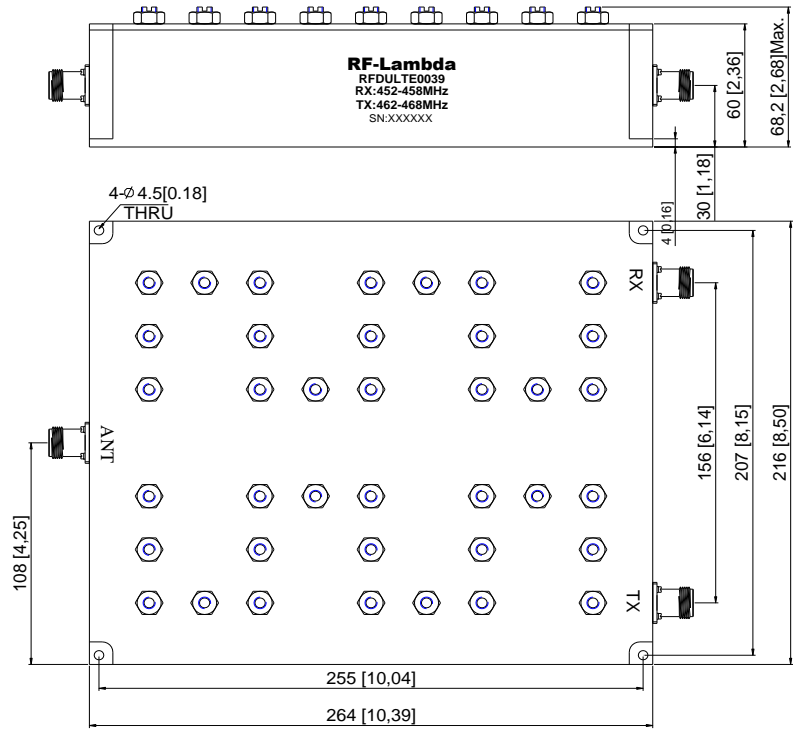
Parameter	RX			TX			Units
	Min	Typ	Max	Min	Typ	Max	
Frequency Range	452 - 458			462 - 468			MHz
Insertion Loss	2.5			2.5			dB
Pass Band Ripple	0.5			0.5			dB
VSWR	1.4			1.4			: 1
Rejection	@462-468MHz	70					dB
	@452-458MHz			70			dB
Power(CW)	100						W
Weight				/Max.			lbs
Impedance	50						Ω
Input / Output Connectors				N-Female(Input) / N-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)

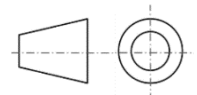
**For vibration testing details please see additional information section.

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.
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
RFDULTE0039	Standard	452MHz-468MHz Coaxial Cavity Dual Frequency Combiner

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