

## Coaxial Cavity Band Pass Filter 34GHz-37GHz



### Product Description

RBPF34G37G-2.92MF is coaxial cavity band pass filter with a frequency range of 34 to 37GHz.

The power rating of this band pass filter is 1W. The passband insertion loss is 2.5dB with a typical rejection of 80dB.

The working temperature of this product is between - 5°C and + 45°C.

### Features

- High Rejection
- Low Insertion Loss
- Excellent Temperature Stability
- Filter Type: Cavity
- Bi-Directional

### 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	Min	Typ	Max	Units
Passband Frequency Range	34		37	GHz
Passband Insertion Loss		1.1	2.5	dB
Passband Return loss	10	12.5		dB
Rejection	@10-25GHz	40	80	dBc
	@38-50GHz	40	42	dBc
Power Rating (CW)			1	W
Weight		0.13 Max.		lbs
Impedance		50		Ω
Input / Output Connectors	2.92mm-Female(Input) – 2.92mm-Male(Output)			
Package	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

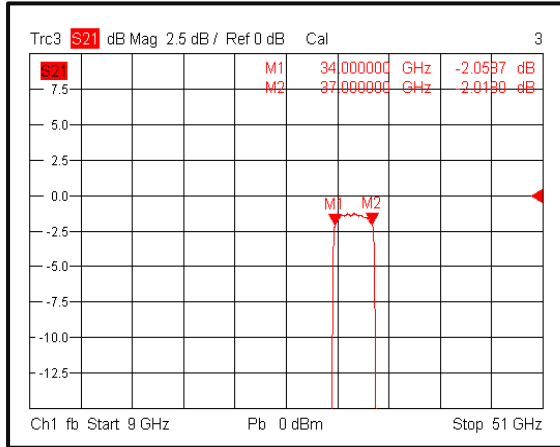
**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-5°C to +45°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C → +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)

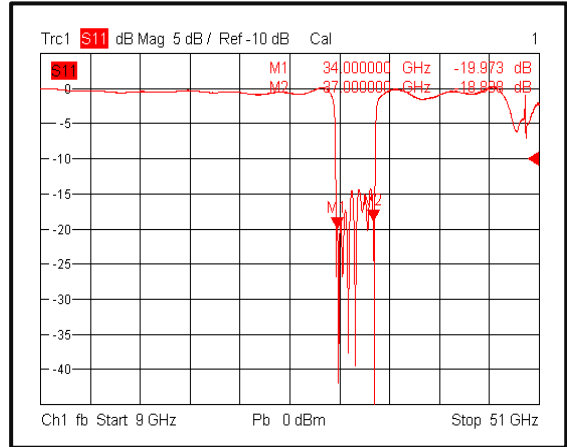
\*For vibration testing details please see additional information section.

**Typical Performance Plots**

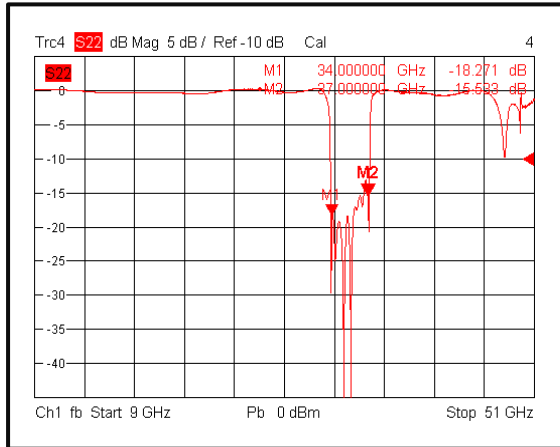
**Insertion Loss**



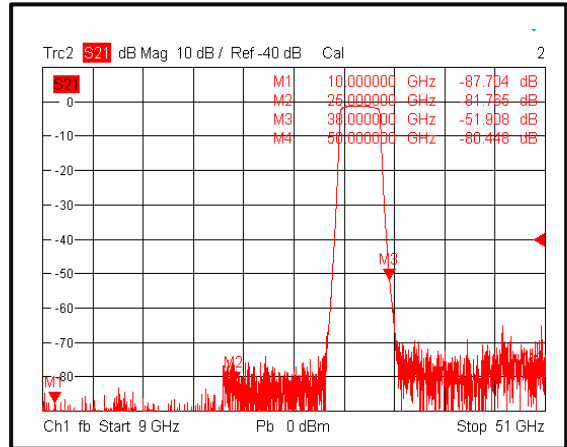
**Input VSWR**



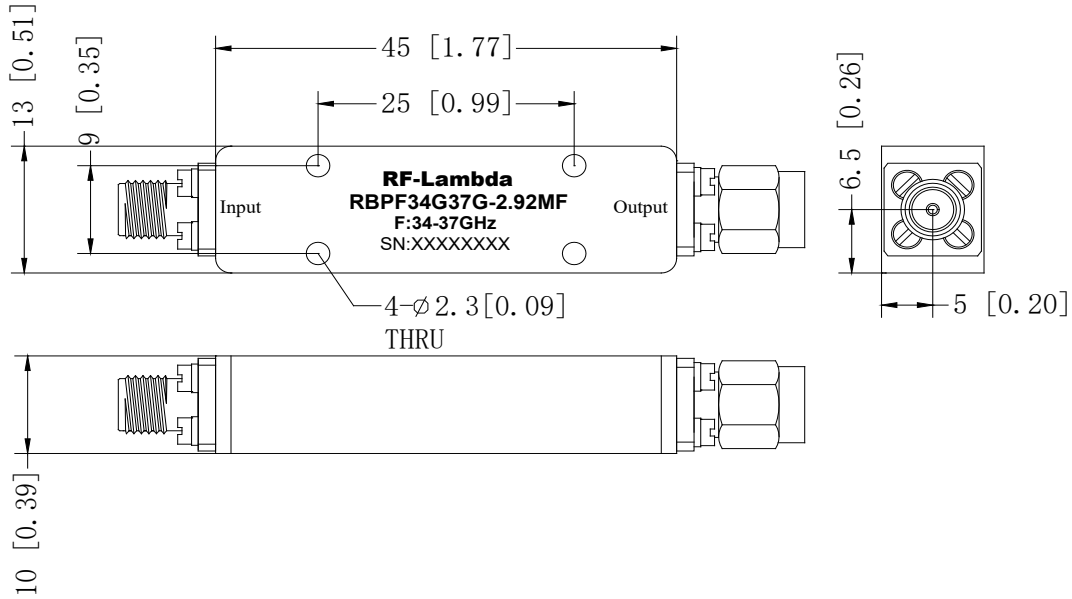
**Output VSWR**



**Rejection**

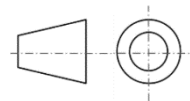


**Outline Drawing**



Notes:

1. Package Material: Copper
2. Finish: Blue Painted
3. All dimensions are in millimeters [inches].
4. Outline Tolerances  $\pm 0.5$  [0.02], Mounting Hole Tolerances  $\pm 0.2$  [0.008] unless otherwise specified.



Additional Information

Documentation	Webpage
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RBPF34G37G-2.92MF	Input connector 2.92mm-Female and Output connector 2.92mm-Male	34-37GHz Coaxial Cavity Band Pass Filter

**Important Notice**

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information.

RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.