

Coaxial Cavity Band Pass Filter 39 - 45GHz



Features

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

Typical Applications

- Wireless Infrastructure
- Test and Measurement
- Military and Aerospace

Electrical Specifications, $T_A = 25^\circ\text{C}$

Parameters		Min.	Typ.	Max.	Units
Passband Frequency Range		39		45	GHz
Passband Insertion Loss			1.1	2.5	dB
Passband Return loss		10	11		dB
Rejection	@10-35GHz	40	75		dBc
	@48-50GHz	40	55		dBc
Power Rating (CW)				1	W
Impedance		50			Ohms
Weight		1.8Max.			ounces
Input / Output Connectors		2.4mm-Female/2.4mm-Male			
Material		Copper			
Finish		Blue Paint			

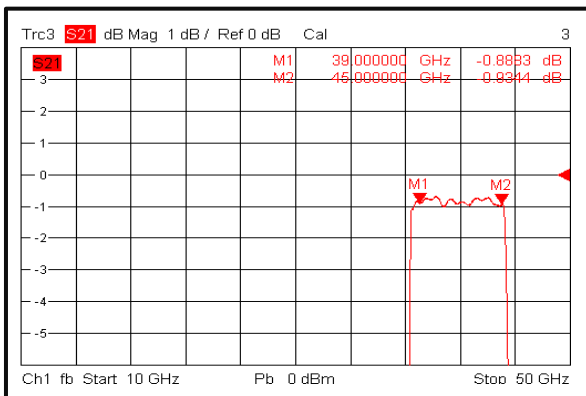
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	5°C~+45°C (Case Temperature)
Storage Temperature	-25°C~+55°C
Thermal Shock	5°C → +45°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +45°C for 72 Hours
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)

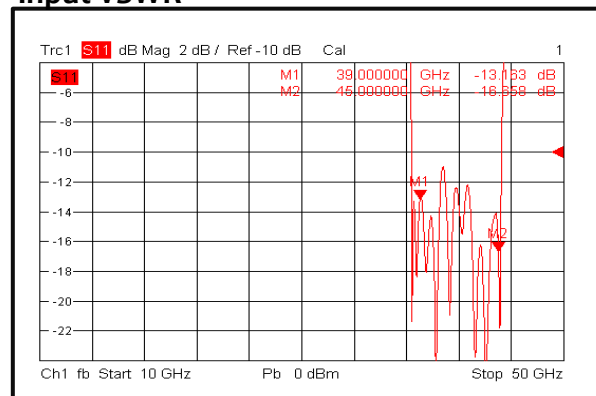
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Typical Performance Plots

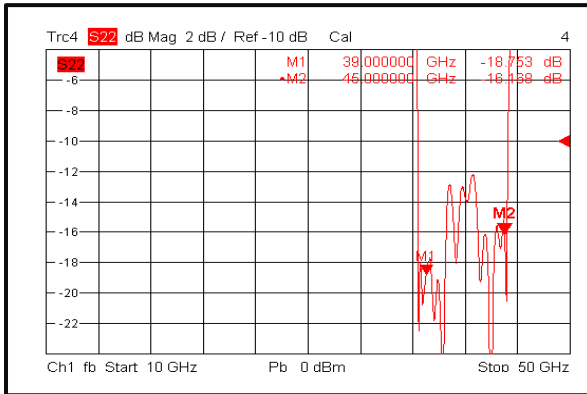
Insertion Loss



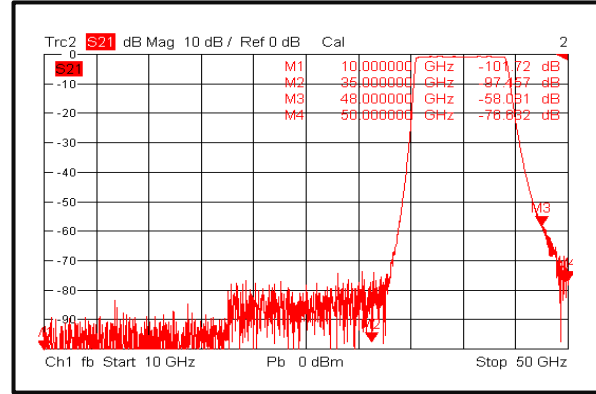
Input VSWR



Output VSWR



Rejection

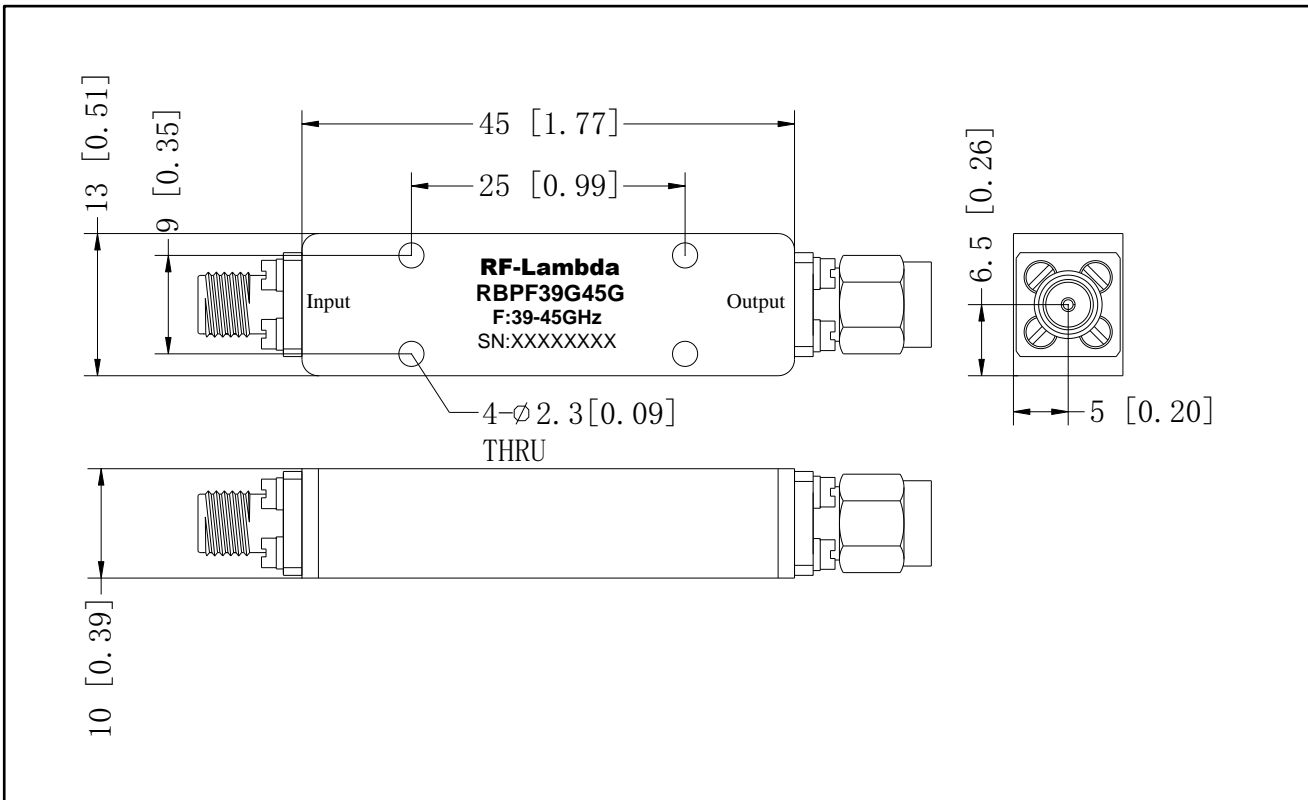


Outline Drawing:

All Dimensions in mm [inches]

Outline Tolerances ± 0.5 [0.02]

Mounting Holes Tolerances ± 0.2 [0.008]



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