

Tube Low Pass Filter DC-5GHz



Product Description

RLPFTBG05 is a Tube Low Pass Filter with a frequency range of DC to 5GHz.

The power rating of this low pass filter is 60W. The insertion loss is 0.4dB with a typical rejection of 60dB.

The working temperature of this product is between - 40°C and + 85°C.

Features

- Tube Low Pass Filter
- Flat frequency response
- Low insertion loss

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
Frequency Range	DC		5	GHz
Insertion Loss			0.4	dB
VSWR			1.25	: 1
Rejection	@10GHz	60		dB
Power Rating	Average		60	W
	Peak (1% Duty Cycle, 1 us Pulse Width)		1	KW
Weight		0.043 Max.		lbs
Impedance		50		Ω
Input / Output Connectors		SMA-Male / SMA-Female		
Package		Epoxy Sealed (Standard)		
		Hermetically Sealed (Optional)		

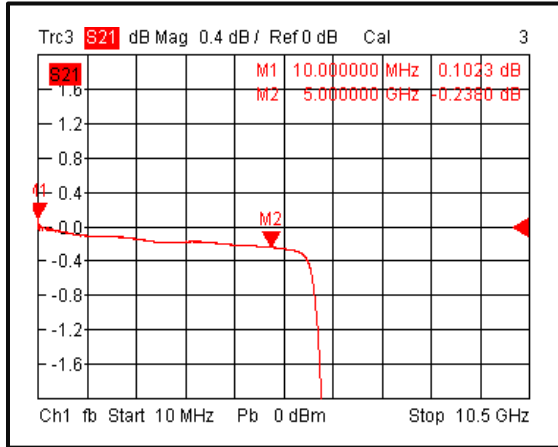
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-55°C to +85°C (Case Temperature)
Storage Temperature	-55°C to +125°C
Thermal Shock	-55°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)

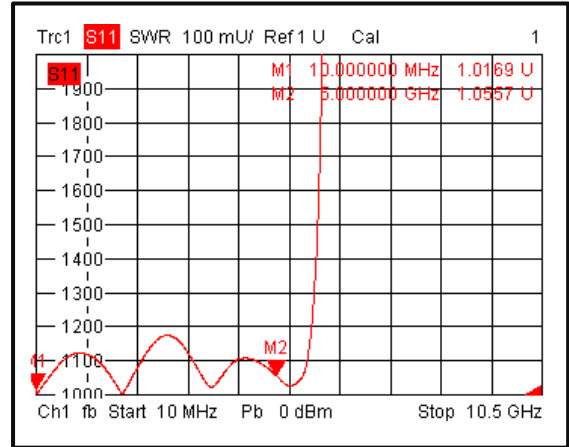
*For vibration testing details please see additional information section.

Typical Performance Plots

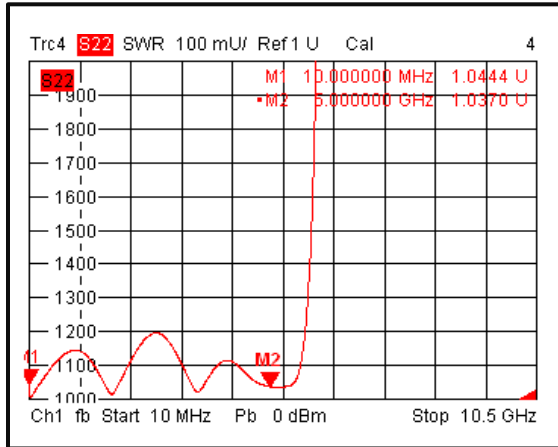
Insertion Loss



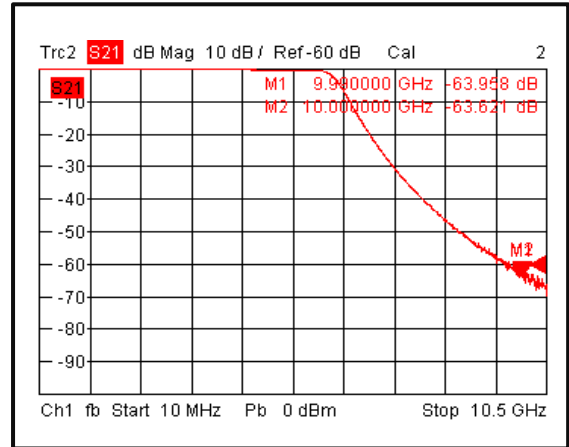
Input VSWR



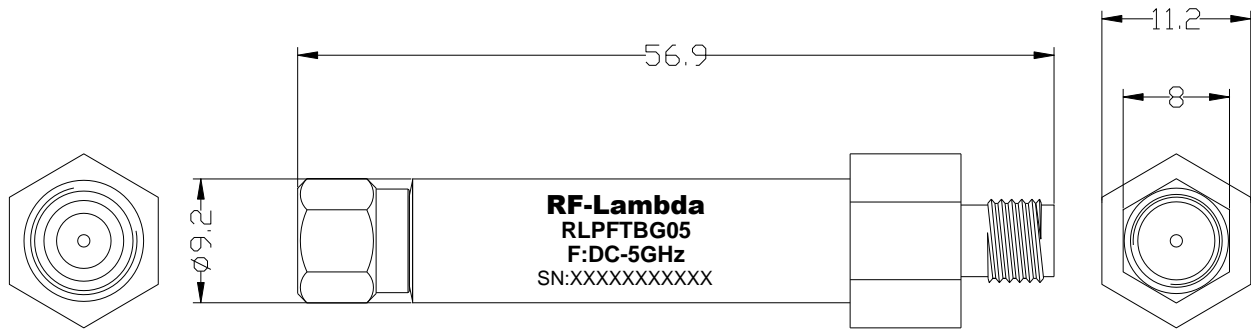
Output VSWR



Rejection

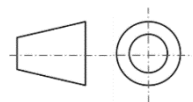


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: Blue Paint
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] 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
RLPFTBG05	SMA-Male/SMA-Female	DC-5GHz Tube Low Pass Filter

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