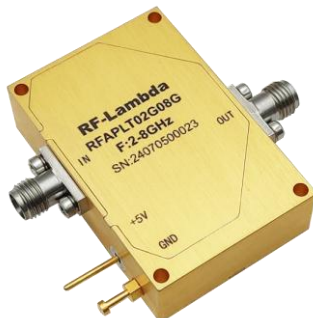


Input Over Drive Front End Protector 2GHz-8GHz



Product Description

RFAPLT02G08G is an input over drive front end protector with a frequency range of 2 to 8GHz.

The maximum input power of the limiter is 30dBm. The typical insertion loss is 1.9dB with a flat leakage of -20dBm.

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

Features

- Wide Band Operation 2-8GHz
- Active, High Isolation Limiter
- Low Insertion Loss
- High Power Handling up to 30dBm

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 (T_A=+25°C)

Parameter	Min	Typ	Max	Units
Frequency Range	2		8	GHz
CW Input Power			30	dBm
Insertion Loss		1.9	2.1	dB
VSWR		1.4	1.5	: 1
Flat Leakage Power at PIN = +30dBm		-20	-15	dBm
Peak Power Leakage (at Pin≤33 dBm ,15% , 2us)		-17	-12	dBm
Voltage		+5		V
Current		200		mA
Weight		0.084 Max.		lbs.
Input / Output Connectors	SMA-Female(Input)-SMA-Female(Output)			
Package	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

Absolute Maximum Ratings

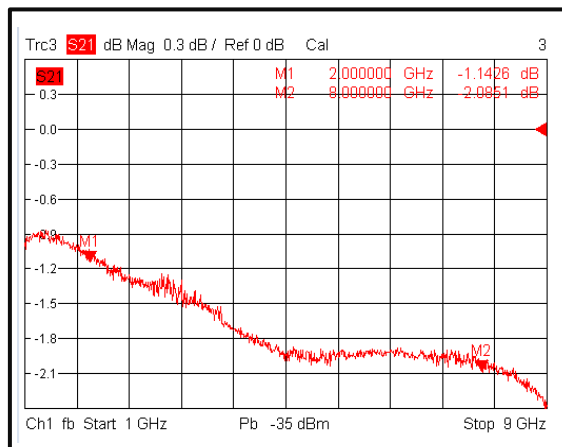
Parameter	Rating
Voltage	+5.5V
RF Input Power (CW)	+33dBm

Environmental Specifications and Test Standards

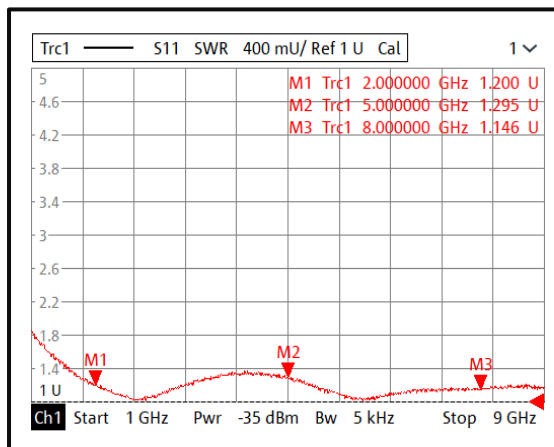
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 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)

Typical Performance Plots

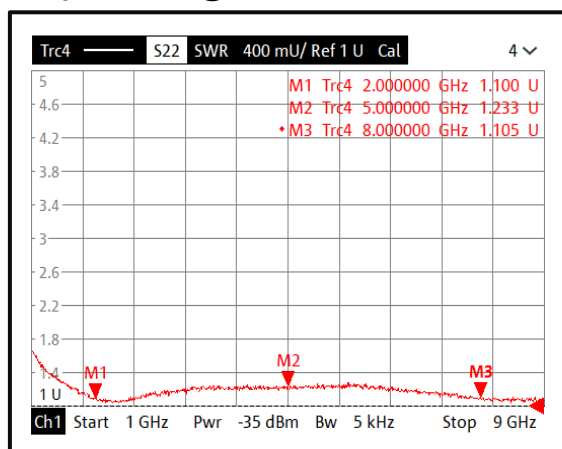
Insertion Loss @+25°C



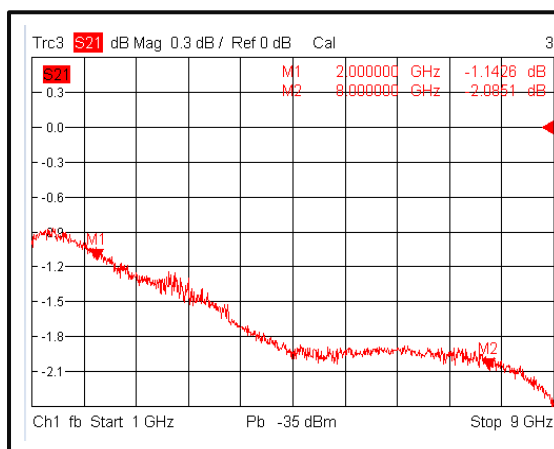
Input VSWR @+25°C



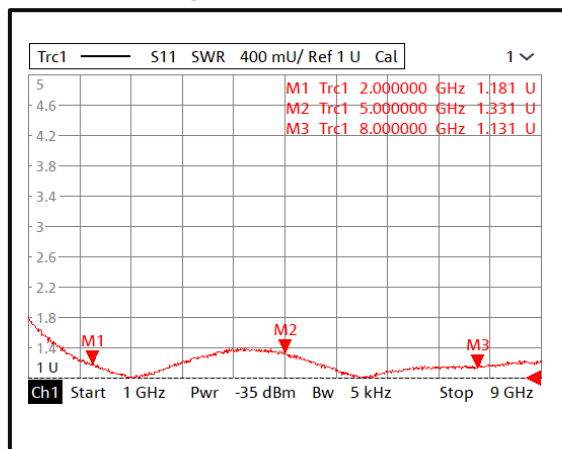
Output VSWR @+25°C



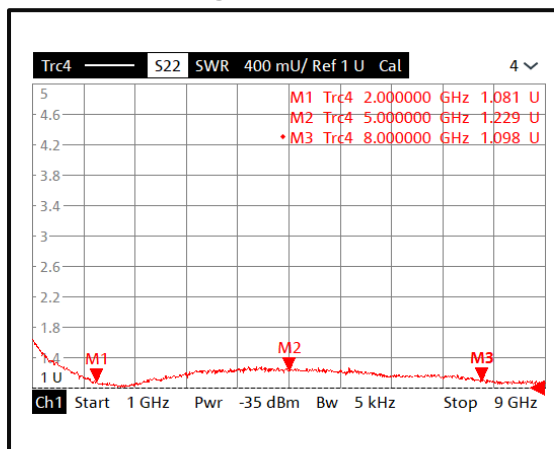
Insertion Loss @-40°C



Input VSWR @-40°C

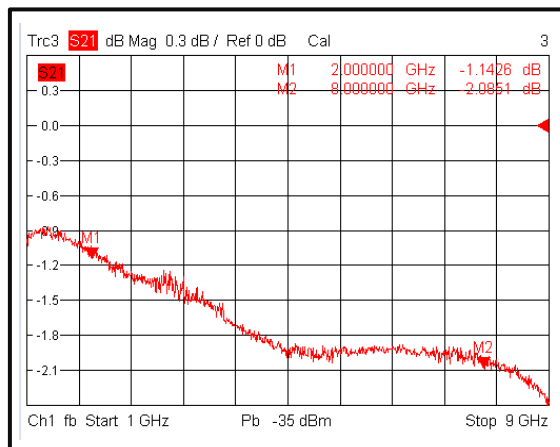


Output VSWR @-40°C

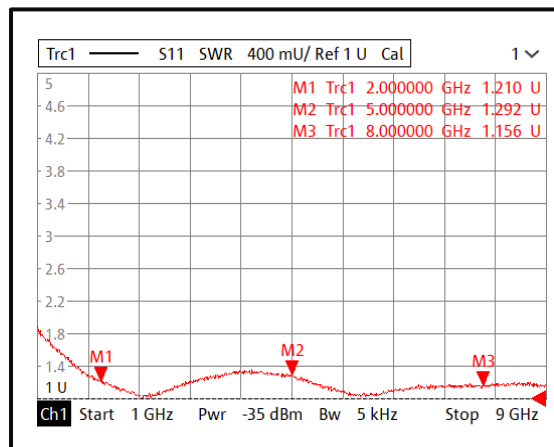


Typical Performance Plots

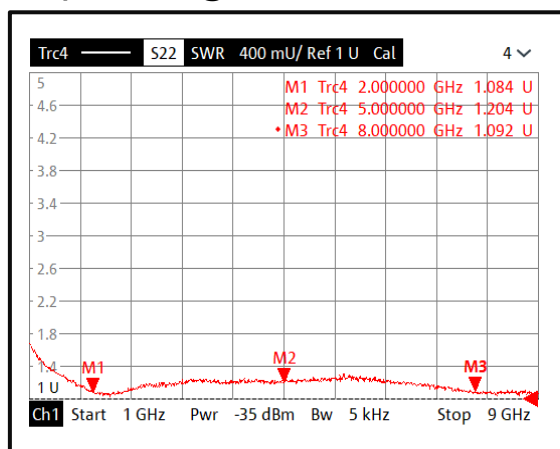
Insertion Loss @+85°C



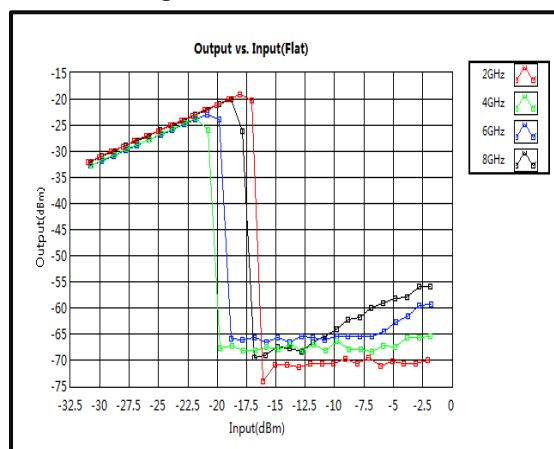
Input VSWR @+85°C



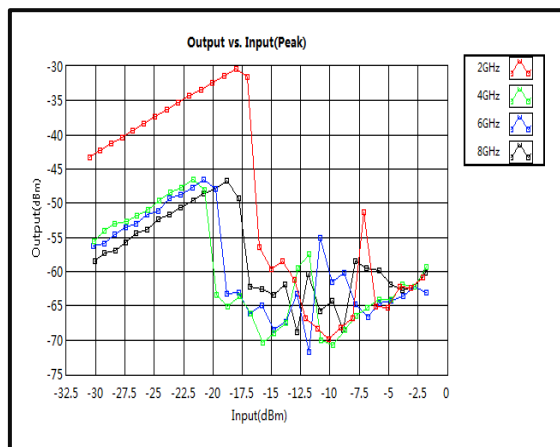
Output VSWR @+85°C



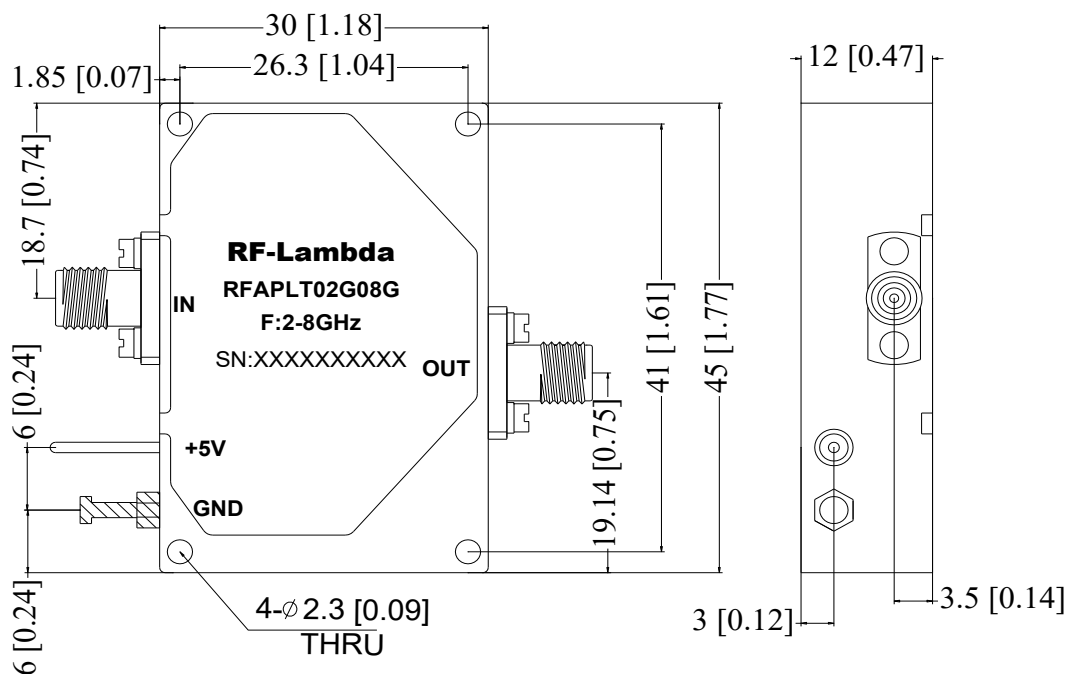
Flat Leakage Power



Peak Power Leakage

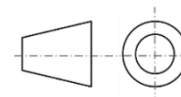


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: Gold Plated
3. All dimensions are in millimeters [inches].
4. Housing Tolerances ± 0.1 [0.004] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



Additional Information

Documentation

Webpage

ESD Policy

https://rflambda.com/pdf/rflambda_esd_control.pdf

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
RFAPLT02G08G	Standard	2GHz-8GHz Power Limiter

Important Notice

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Ordering Information

Part Number	Modification	Description
RFAPLT02G08G	Standard	2GHz-8GHz Power Limiter

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