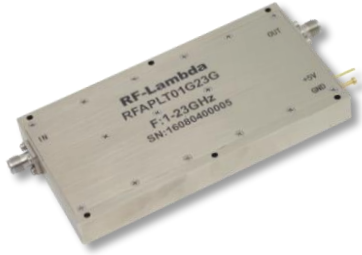


Input Over Drive Front End Protector 1GHz - 23GHz



Product Description

RFAPLT01G23G is an input over drive front end protector with a frequency range of 1 to 23GHz.

The max input power of the limiter is 1W. The typical insertion loss is 2dB and Flat Leakage is -17dB.

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

Features

- Wide Band operation 1-23GHz
- Active, High Isolation Limiter
- Low Insertion Loss and Good Return Loss
- High Power Handling Capability up to 1W
- Customization available upon request

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)

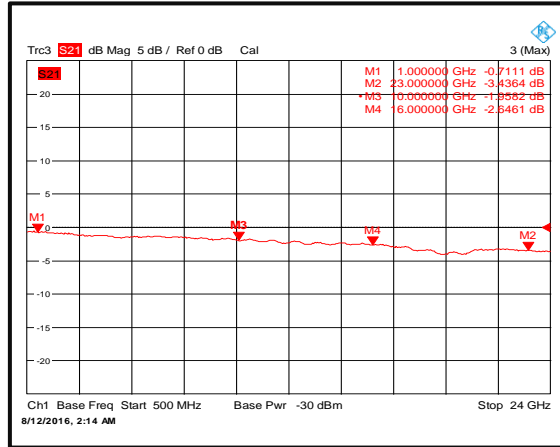
Parameters	Min	Typ	Max	Min	Typ	Max	Units
Frequency Range		1 - 10		10 - 23			GHz
CW Input Power			1			1	W
Peak Power (<10% <2us)			2			2	W
Insertion Loss		2.0	2.5		4.0	4.5	dB
VSWR		1.5	1.8		1.5	2	: 1
Flat Leakage @ Pin ≤ 30 dBm		-17	-15		-10	-9	dBm
Peak Power Leakage at Pin≤33 dBm (<10% , < 2us)		-12	-11		-6	-5	dBm
Supply Current (Vcc = +5V)		260	300		260	300	mA
Weight			0.33				lbs.
Input / Output Connectors							SMA-Female(Input)-SMA-Female(Output)

Environmental Specifications and Test Standards

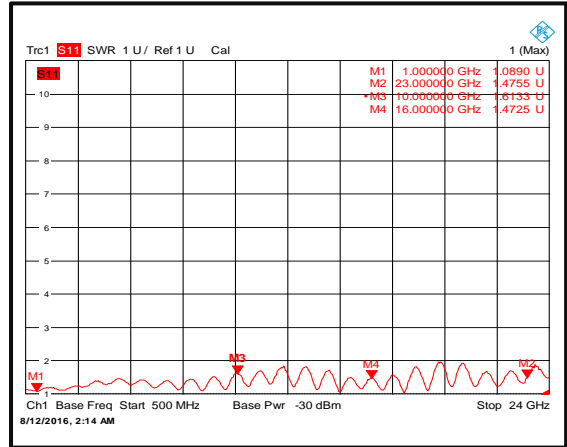
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

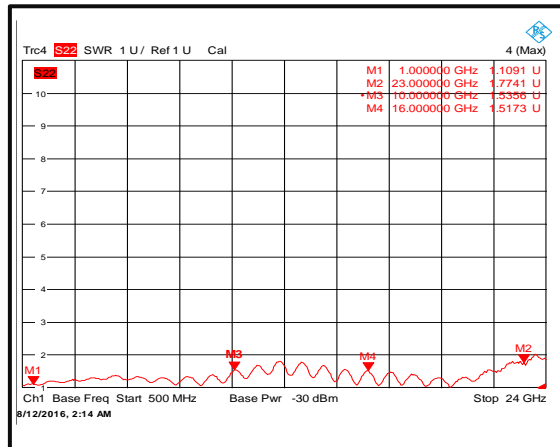
Insertion Loss



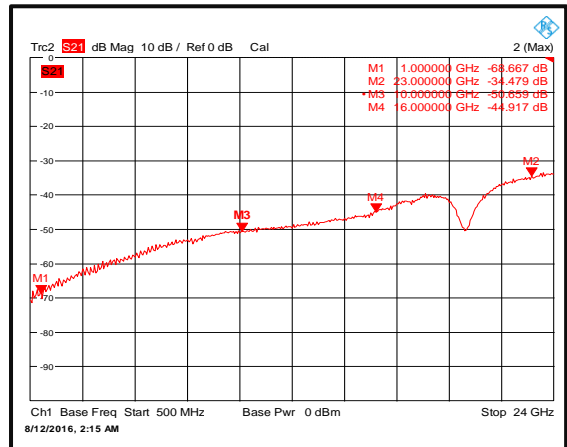
Input VSWR



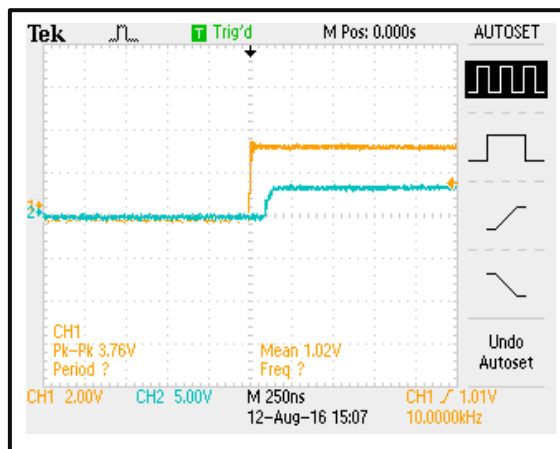
Output VSWR



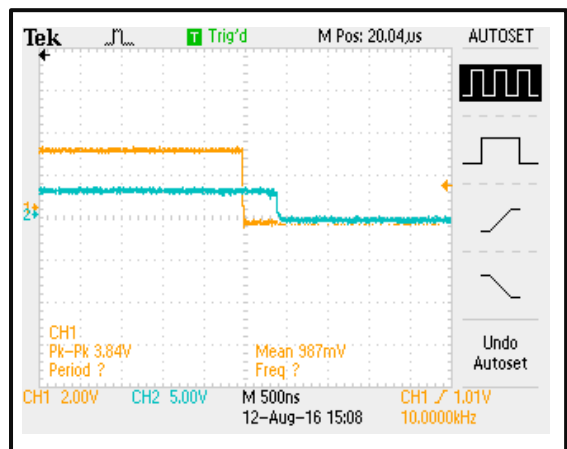
Isolation



Limiting Speed

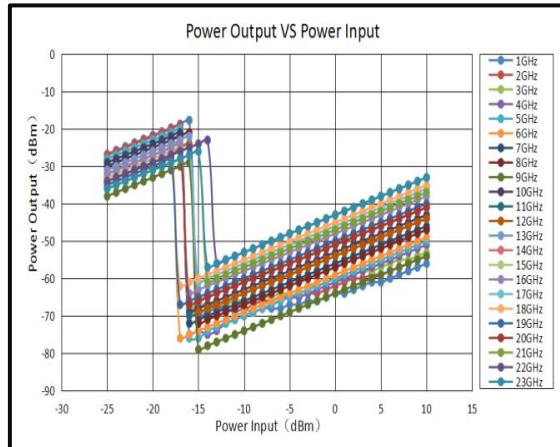


Recovery Time

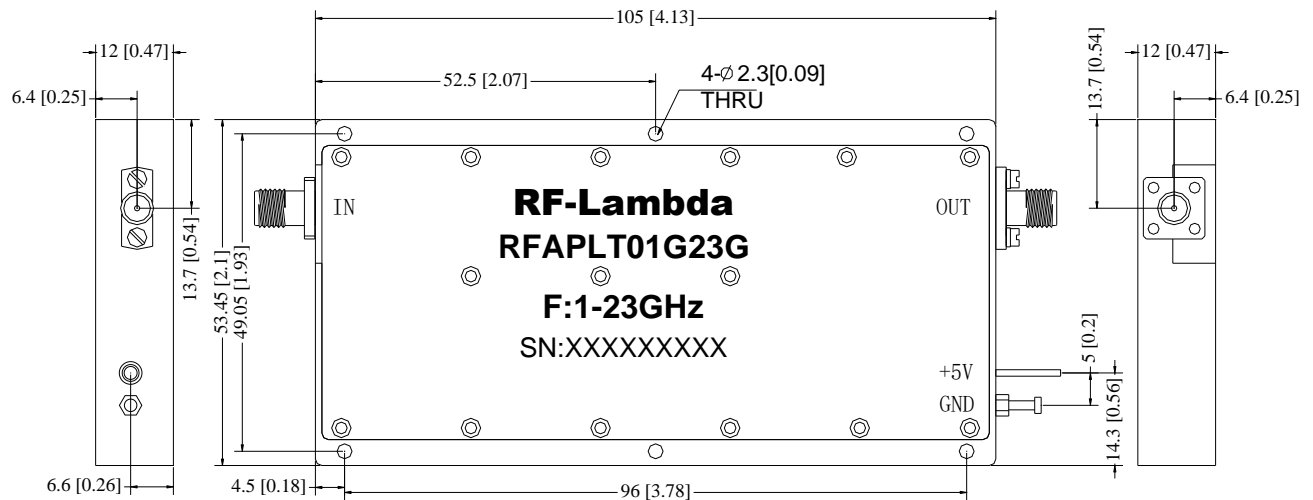


Typical Performance Plots

Flat Leakage

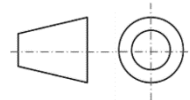


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Plating: Nickel
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
Heatsink Lookup Specifications	https://rflambda.com/search_heatsink.jsp
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
RFAPLT01G23G	Input connector SMA-Female and Output connector SMA-Female	1GHz-23GHz Input Over Drive Protector

Important Notice

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