

Input Over Drive Front End Protector 18GHz-40GHz



Product Description

RFAPLT18G40G is an input over drive front end protector with a frequency range of 18 to 40GHz.

The maximum input power of the limiter is 23dBm. The typical insertion loss is 3.0dB with a flat leakage of -20dBm.

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

Features

- Wide Band Operation 18-40GHz
- Active, High Isolation Limiter
- Low Insertion Loss
- High Power Handle Capability up to 23dBm

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	18		40	GHz
CW Input Power		23		dBm
Insertion Loss		3.0	4.0	dB
VSWR		1.8	2.2	: 1
Flat Leakage Power at PIN = +23dBm		-20	-15	dBm
Peak Power Leakage		-10		dBm
Voltage		+5		V
Current		200		mA
Weight		0.085 Max.		lbs.
Input / Output Connectors	2.92mm-Female(Input)-2.92mm-Female(Output)			
Package	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

Absolute Maximum Ratings

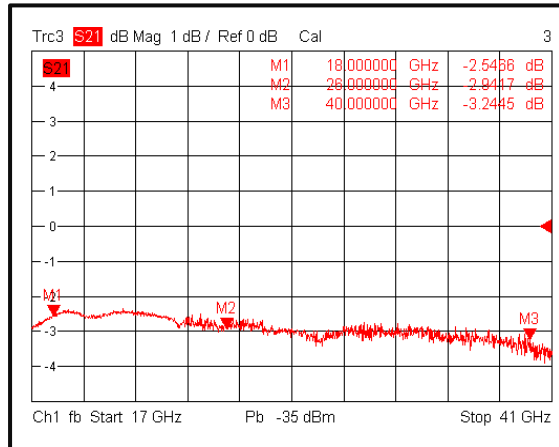
Parameter	Rating
Voltage	+5.5V
RF Input Power (CW)	+25dBm

Environmental Specifications and Test Standards

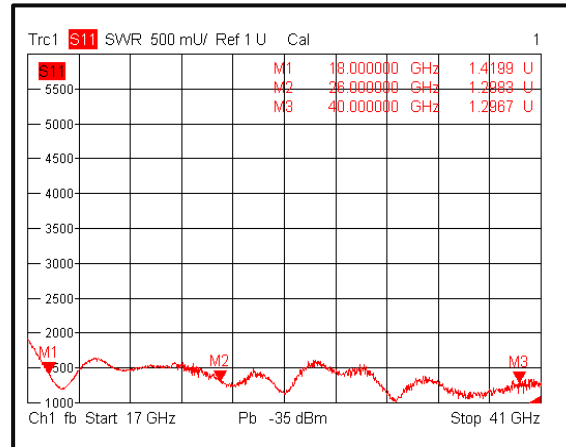
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

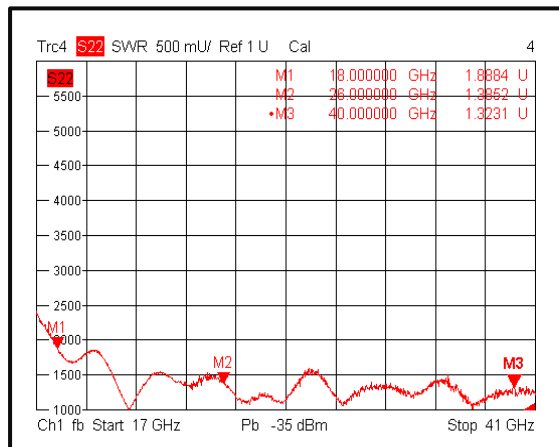
Insertion Loss @+25°C



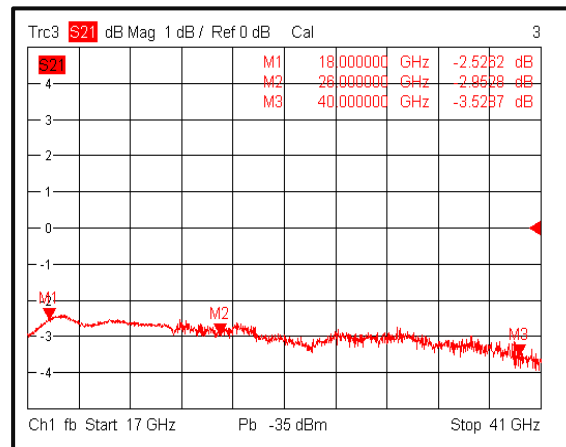
Input VSWR @+25°C



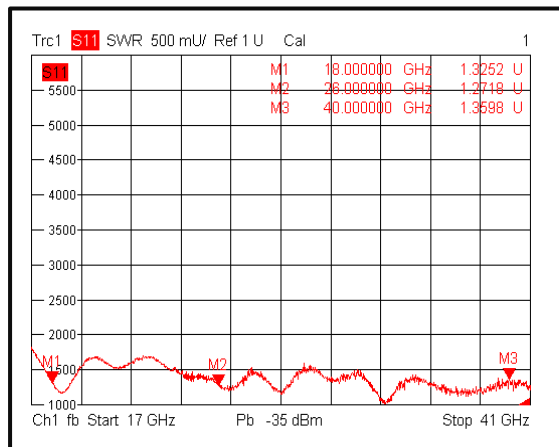
Output VSWR @+25°C



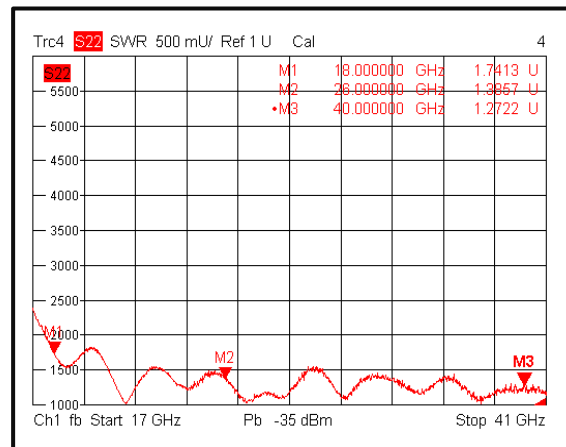
Insertion Loss @-40°C



Input VSWR @-40°C

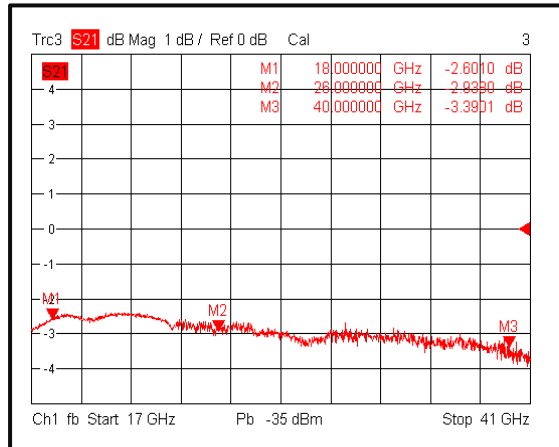


Output VSWR @-40°C

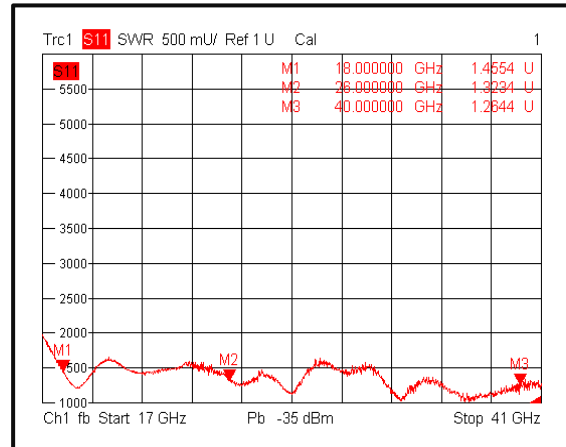


Typical Performance Plots

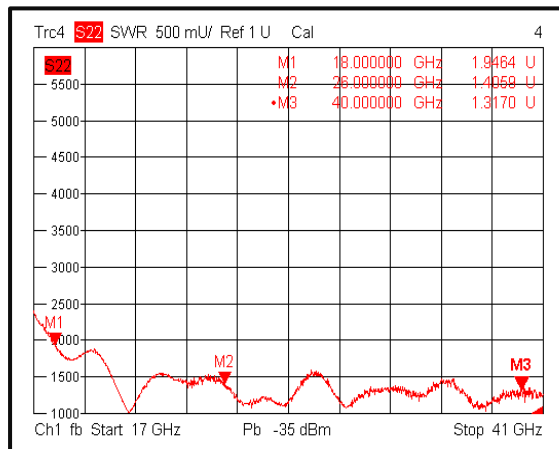
Insertion Loss @+85°C



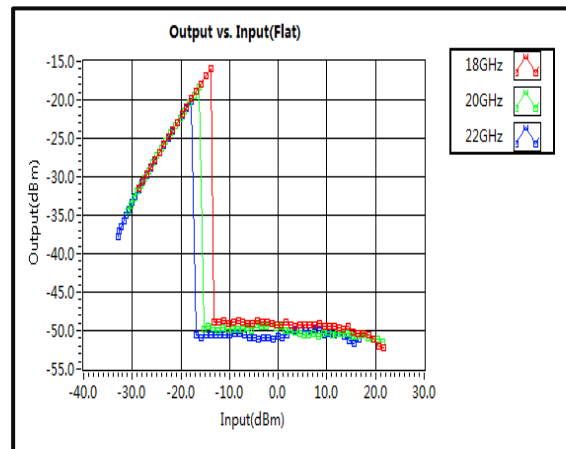
Input VSWR @+85°C



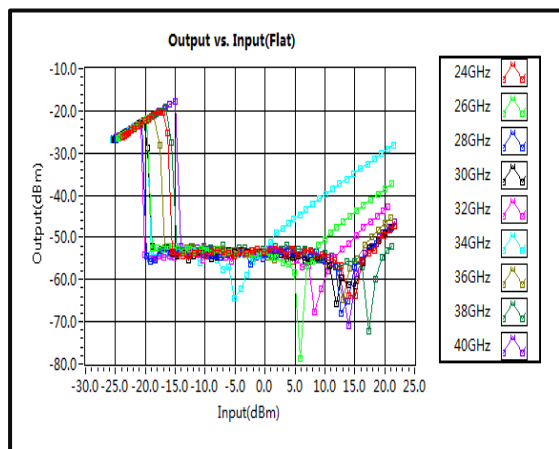
Output VSWR @+85°C



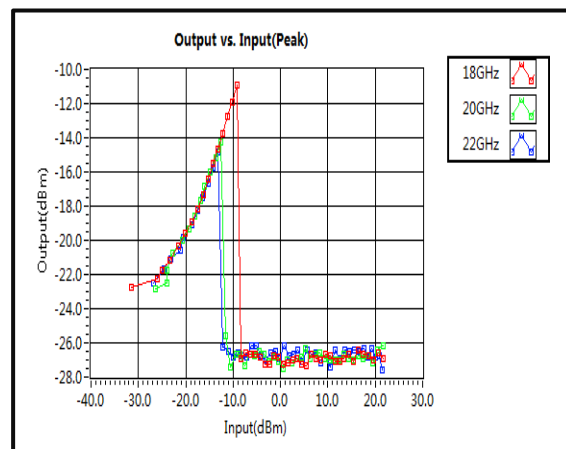
Flat Leakage Power(18GHz-22GHz)



Flat Leakage Power(24GHz-40GHz)

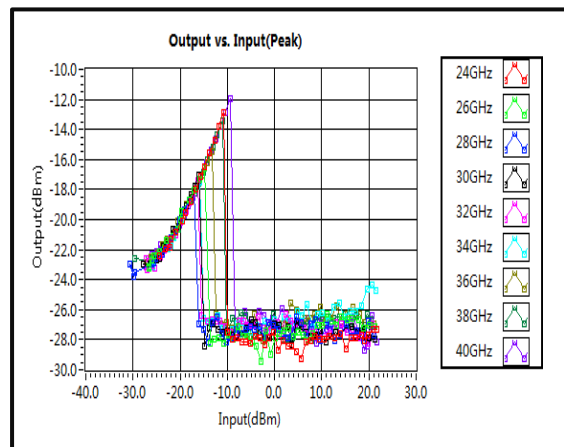


Peak Power Leakage(18GHz-22GHz)

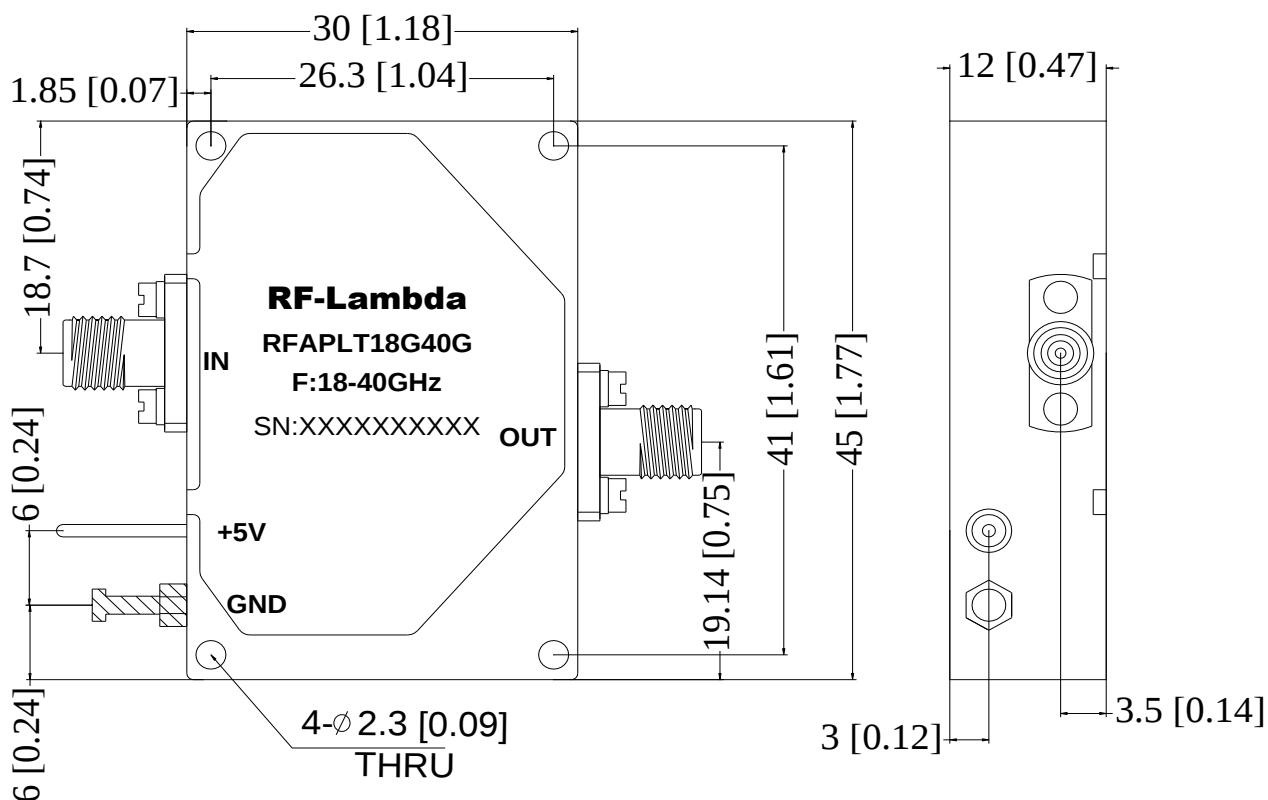


Typical Performance Plots

Peak Power Leakage(24GHz-40GHz)

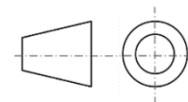


Outline Drawing



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
RFAPLT18G40G	Input connector 2.92mm-Female and Output connector 2.92mm-Female	18GHz-40GHz Power Limiter

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.