

Input Over Drive Front End Protector 12GHz-18GHz



Product Description

RFPLT12G18GH is an input over drive front end protector with a frequency range of 12 to 18GHz.

The input power of the limiter is 1W. The typical insertion loss is 1.6dB and Flat Leakage is -17dB.

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

Features

- Wide Band operation 12-18GHz
- Active, High Isolation Limiter
- Low Insertion Loss and Good Return Loss
- High Power Handle 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)

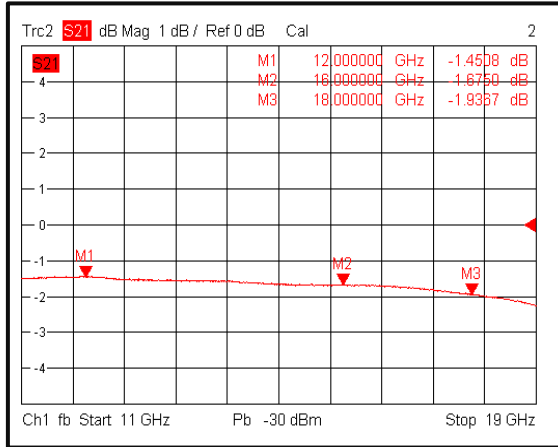
Parameter	Min	Typ	Max	Units
Frequency Range	12		18	GHz
CW Input Power		1		W
Peak Power (<10% <2μs)		1		W
Insertion Loss		1.6	2.2	dB
VSWR		1.43	1.5	: 1
Flat Leakage @ PIN ≤30 dBm		-17	-15	dBm
Peak Power Leakage at PIN ≤33 dBm (<10% <2μs)		-14	-12	dBm
Weight		0.11 Max.		lbs.
Input / Output Connectors	SMA-Female(Input)-SMA-Female(Output)			
Package	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

Environmental Specifications and Test Standards

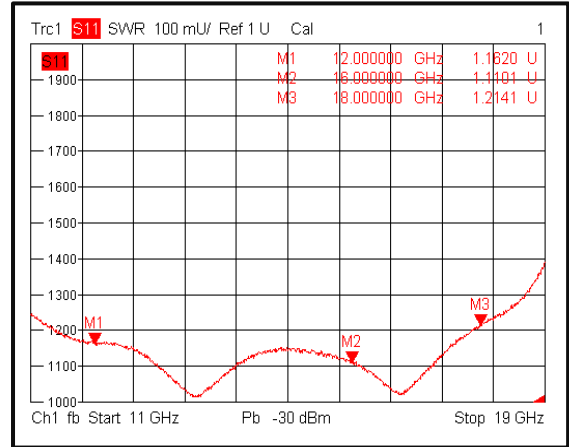
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

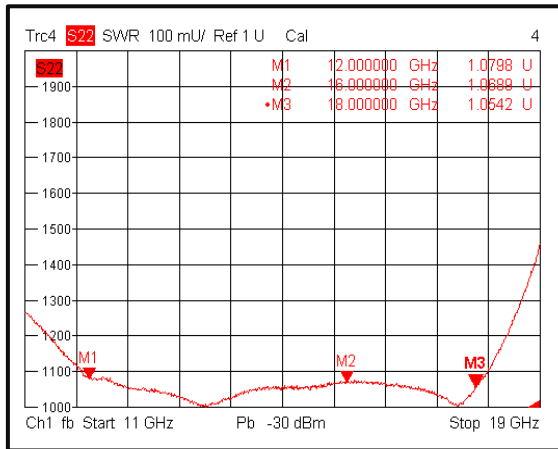
Insertion Loss @+25°C



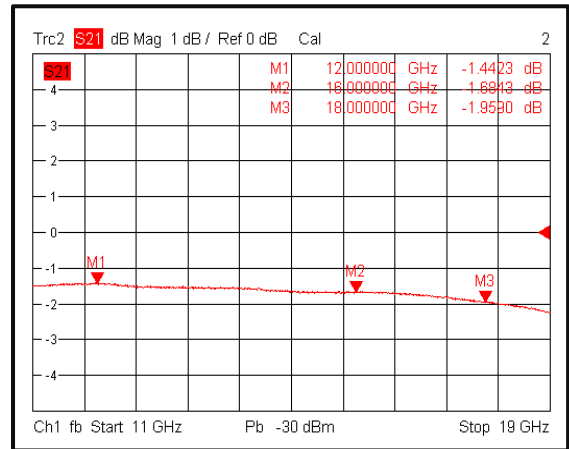
Input VSWR @+25°C



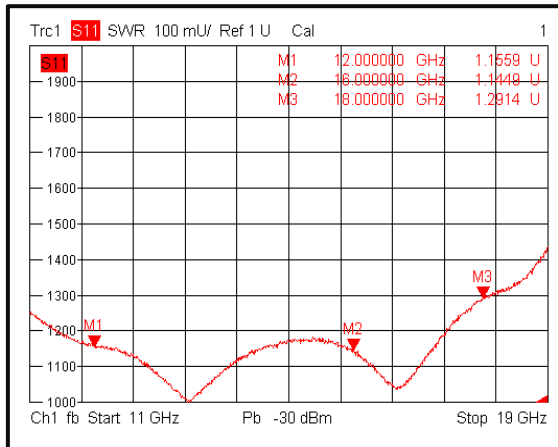
Output VSWR @+25°C



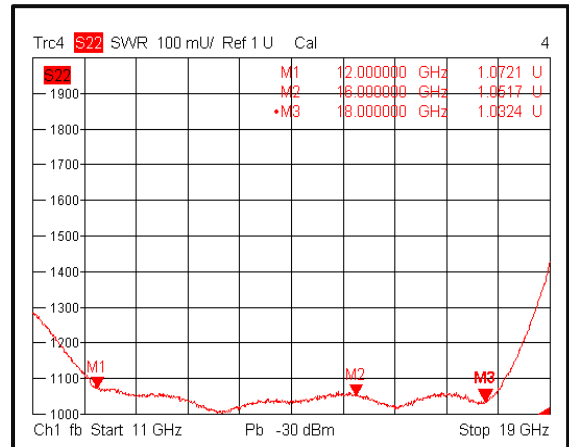
Insertion Loss @-40°C



Input VSWR @-40°C

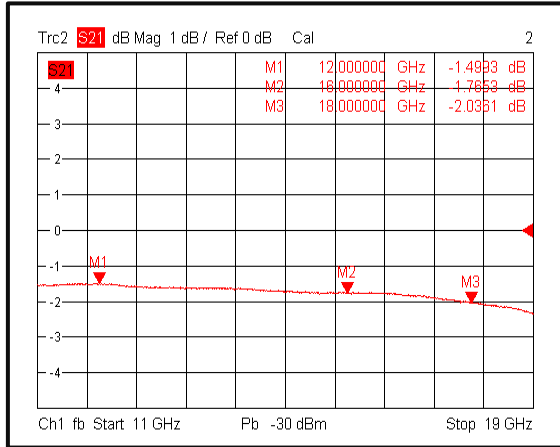


Output VSWR @-40°C

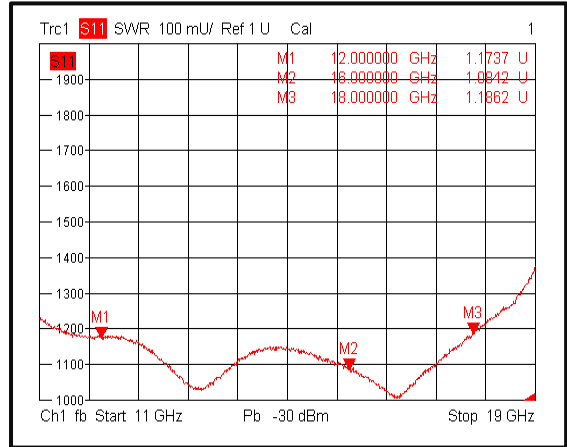


Typical Performance Plots

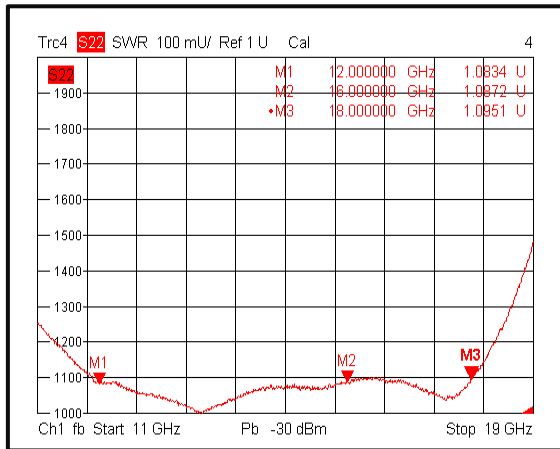
Insertion Loss @+85°C



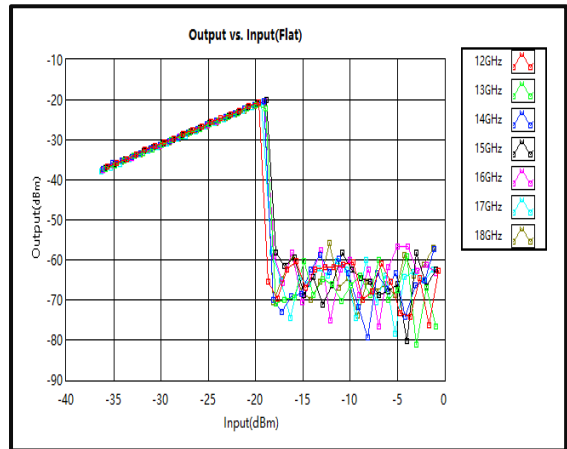
Input VSWR @+85°C



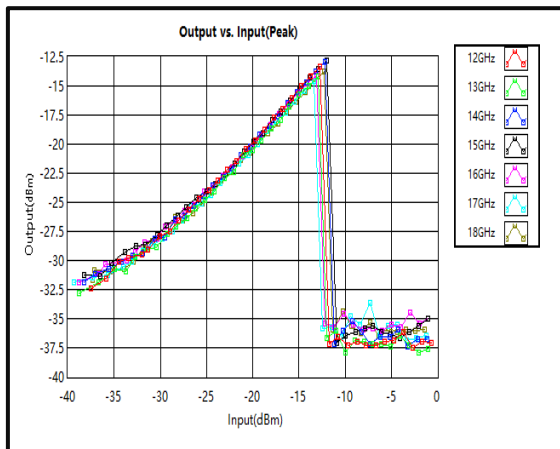
Output VSWR @+85°C



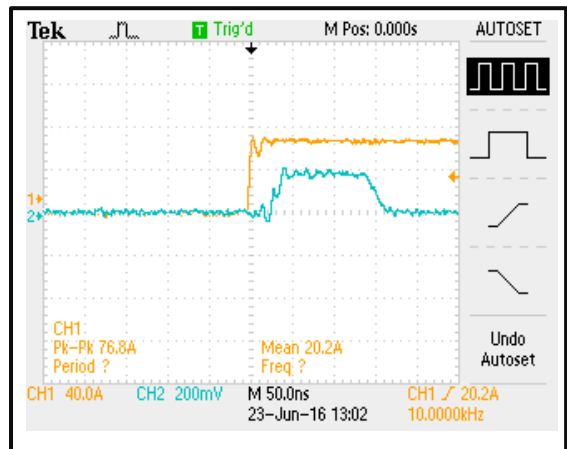
Flat Leakage Power



Peak Power Leakage

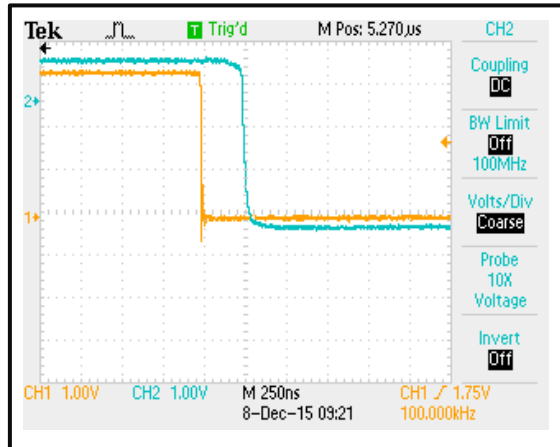


Speed

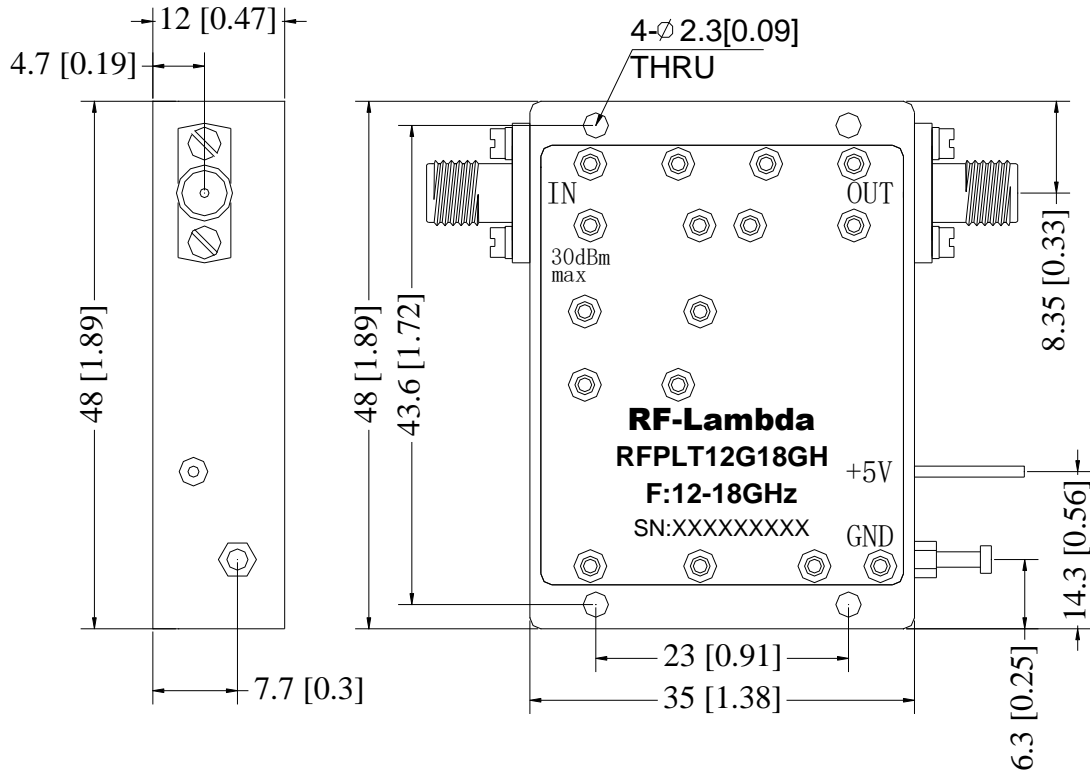


Typical Performance Plots

Speed

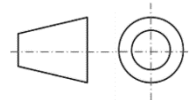


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: Nickel 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
RFPLT12G18GH	Standard	12GHz-18GHz Power Limiter

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