

Wide band Power Limiter 8GHz-18GHz



Product Description

RFPLT08G12G is a wideband power limiter with a frequency range of 8 to 18GHz.

The max peak power of the limiter is 20W. The typical insertion loss is 1.2 dB and Flat Leakage is 17dB.

The power limiter's connectors are SMA-Male and SMA-Female .

The operating temperature of this product is -40 to +85°C.

Features

- Wide Band Operation 8-12GHz
- Functional Bandwidth : 8GHz to 18GHz
- Passive, High Isolation Limiter
- Low Insertion Loss and Good Return Loss
- High Power Handling: 20W

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)

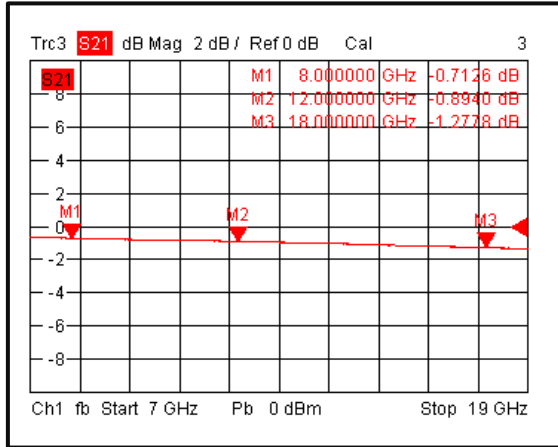
Parameter	Min	Typ	Max	Min	Typ	Max	Units
Frequency Range	8		12	8		18	GHz
CW Input Power			6			6	CW
Peak Power (30us with 5% duty cycle)			20			20	W
Insertion Loss		1.2	1.5		1.7	2.0	dB
VSWR		1.3	1.6		1.5	1.8	: 1
Flat Leakage		17	20.5		17	20.5	dBm
Peak Power Leakage		20	25		20	25	dBm
Weight			0.03 Max.				lbs.
Input / Output Connectors			SMA-Male(Input) - SMA-Female(Output)				
Package			Epoxy Sealed (Standard)				
			Hermetically Sealed (Optional)				

Environmental Specifications and Test Standards

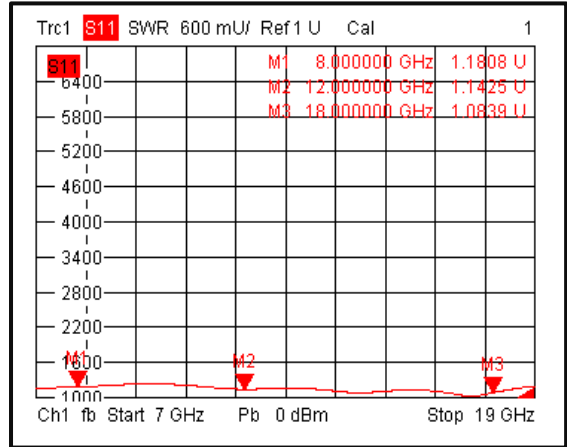
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

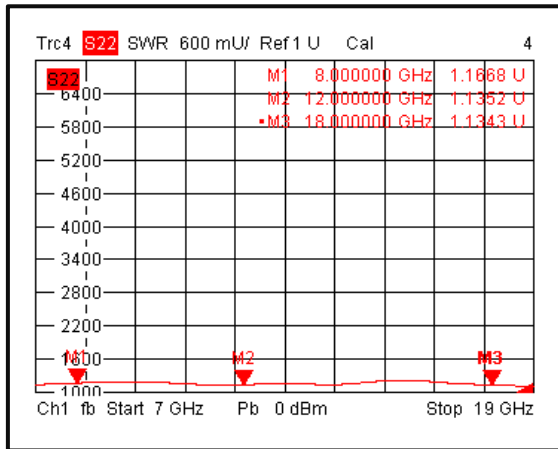
Insertion Loss @+25°C



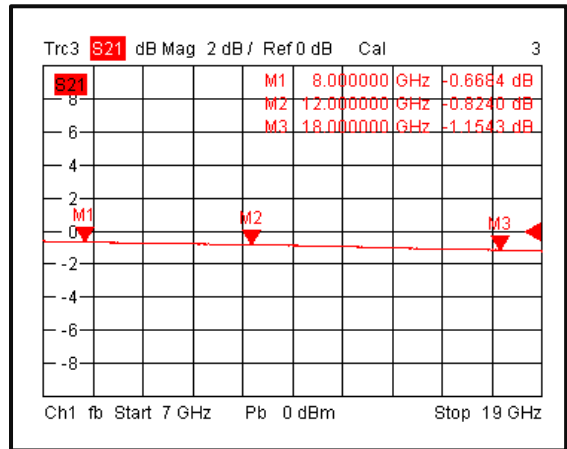
Input VSWR @+25°C



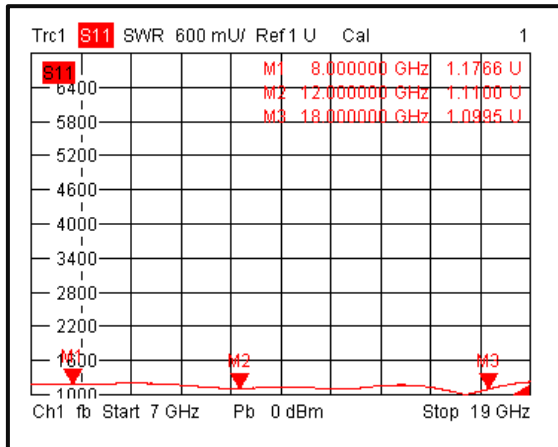
Output VSWR @+25°C



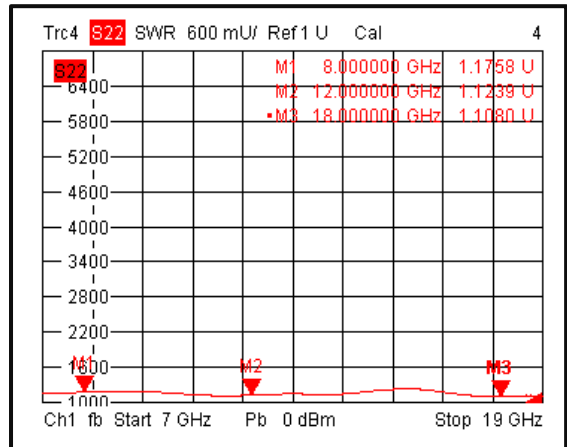
Insertion Loss @-40°C



Input VSWR @-40°C

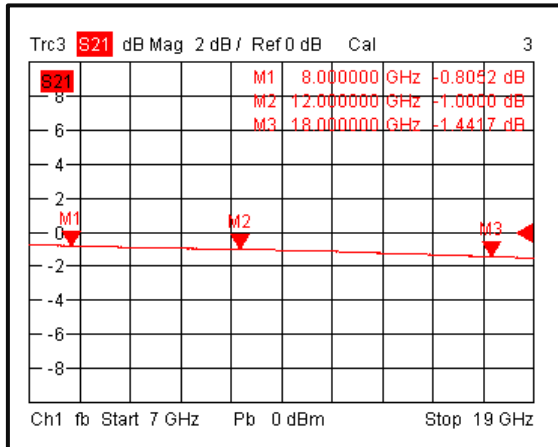


Output VSWR @-40°C

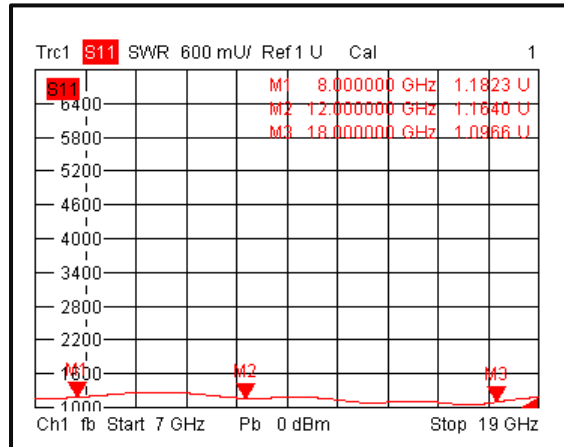


Typical Performance Plots

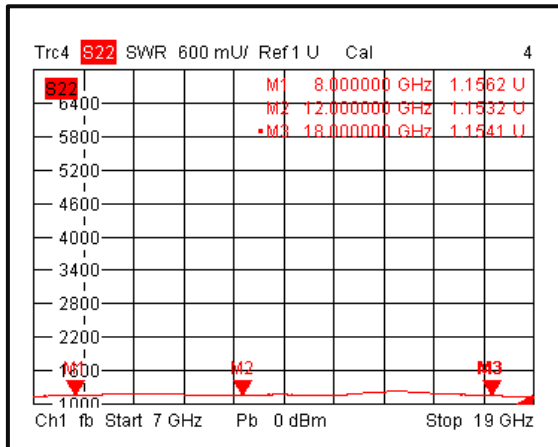
Insertion Loss @+85°C



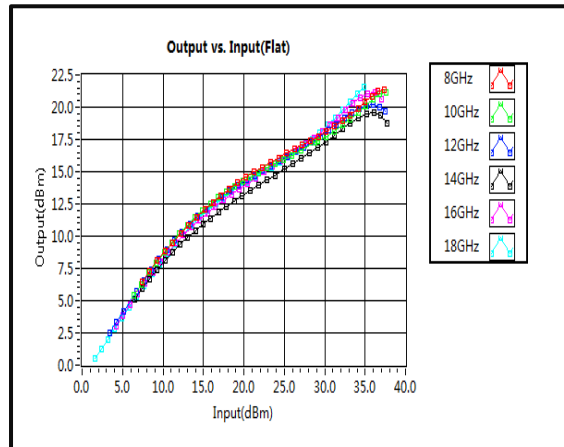
Input VSWR @+85°C



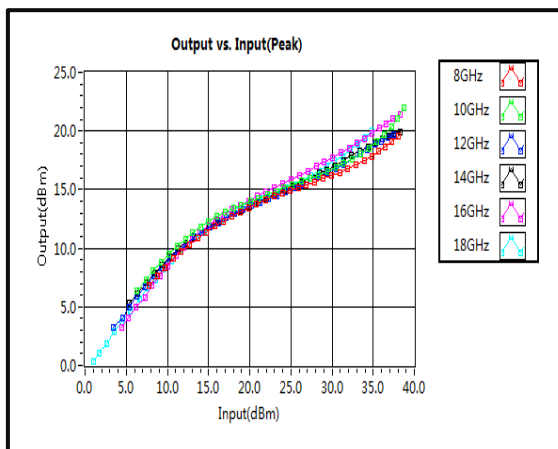
Output VSWR @+85°C



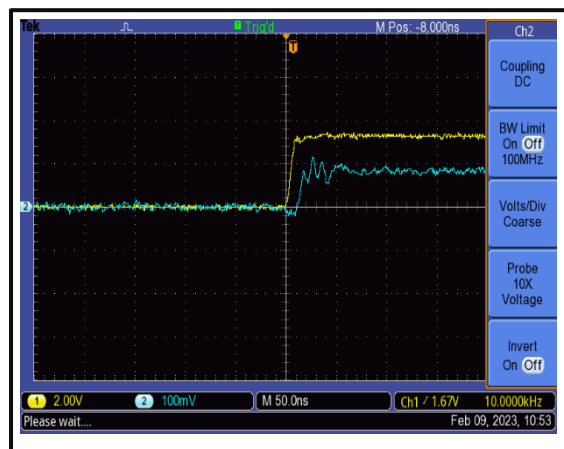
Flat Leakage Power



Peak Power Leakage

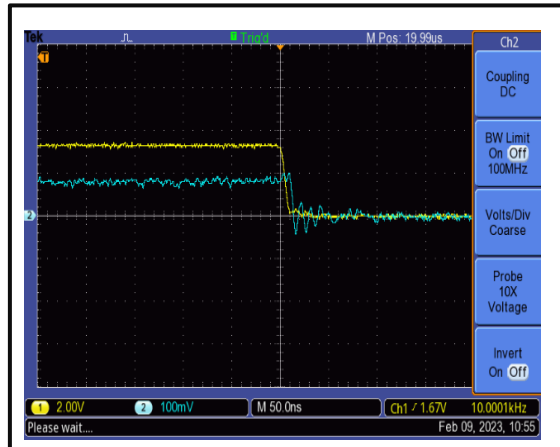


Speed

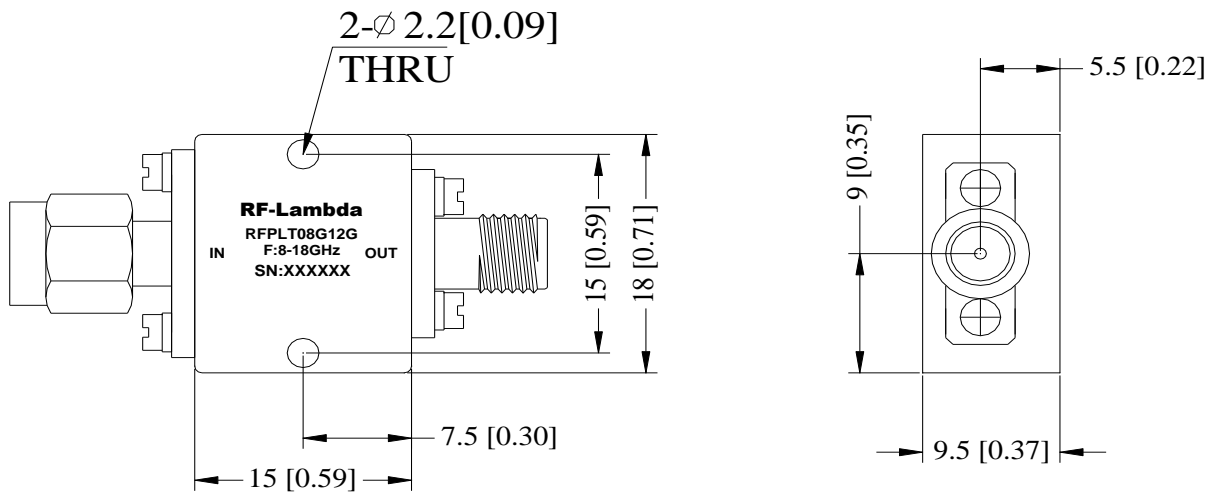


Typical Performance Plots

Speed

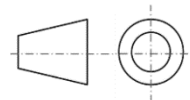


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Finish: 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
RFPLT08G12G	Input Connector SMA-Male and Output Connector SMA-Female	8GHz-18GHz Power Limiter

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