

100W Hermetically Sealed Wide Band Power Limiter 1GHz-6GHz



Features

- Hermetically Sealed Wide Band Power Limiter
- Passive, High Isolation Limiter
- Low Insertion Loss
- High Power Handling: 100W

Product Description

RFPLT01G06GG-H is a Hermetically Sealed wideband power limiter with a frequency range of 1 to 6GHz.

The max input Power of the limiter is 100W. The typical insertion loss is 0.8 dB and Flat Leakage at > 30dBm input is 16dB.

The power limiter's connectors are SMA-female.

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

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)

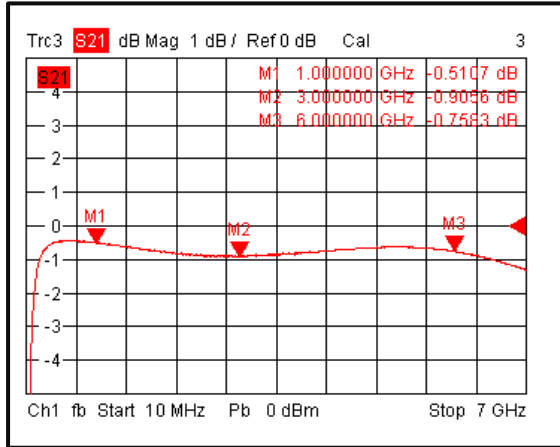
Parameter	Min	Typ	Max	Units
Frequency Range	1		6	GHz
CW Input Power @ 50Ω, 25°C			50	W
Incident Power (Pulsed, PW=10us, DC=10%,50Ω, 25°C)			100	W
Insertion Loss		0.8	1.0	dB
VSWR		1.8	2.0	: 1
Flat Leakage Power @PIN > 30 dBm		≤ 16		dBm
Peak Power Leakage		≤ 18		dBm
Weight		0.03Max.		lbs.
Input / Output Connectors	SMA-Female(Input) - SMA-Female(Output)			
Package	Hermetically Sealed (Laser Welded)			

Environmental Specifications and Test Standards

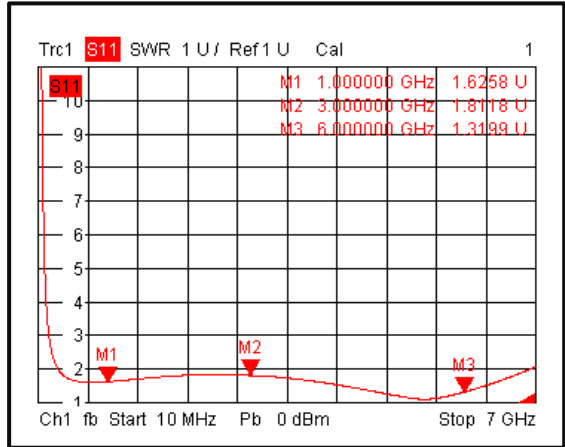
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

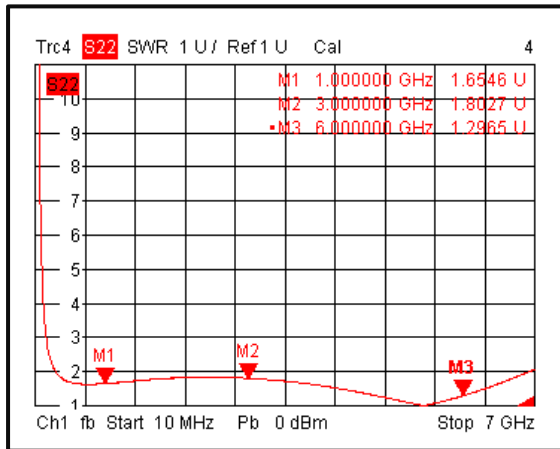
Insertion Loss @+25°C



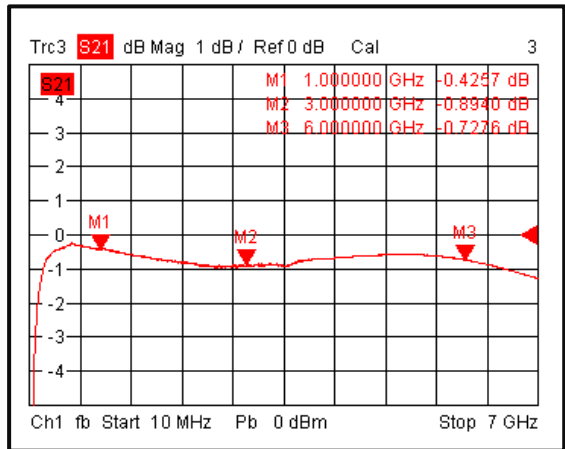
Input VSWR @+25°C



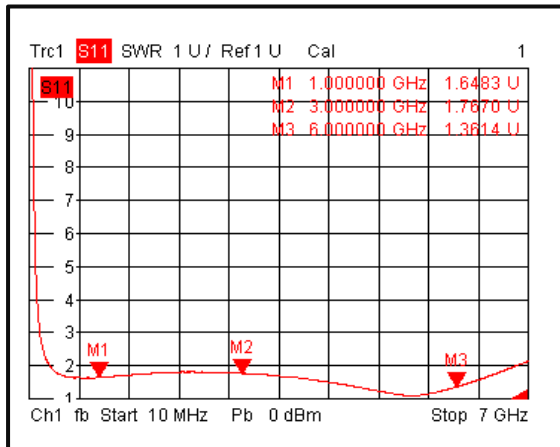
Output VSWR @+25°C



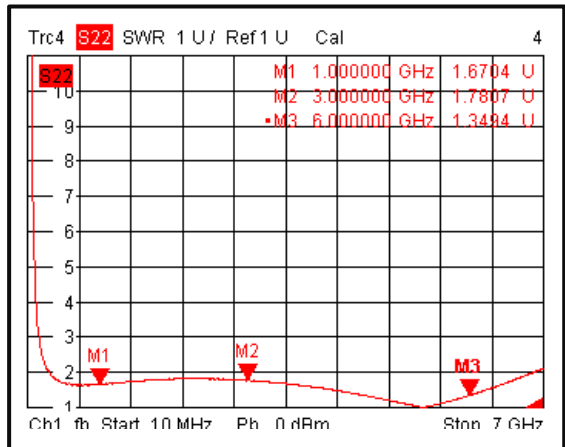
Insertion Loss @-40°C



Input VSWR @-40°C

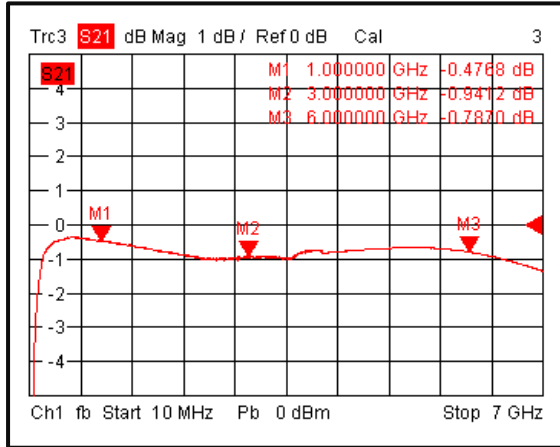


Output VSWR @-40°C

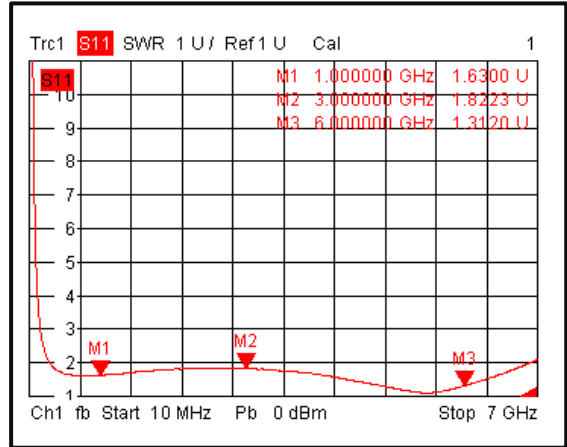


Typical Performance Plots

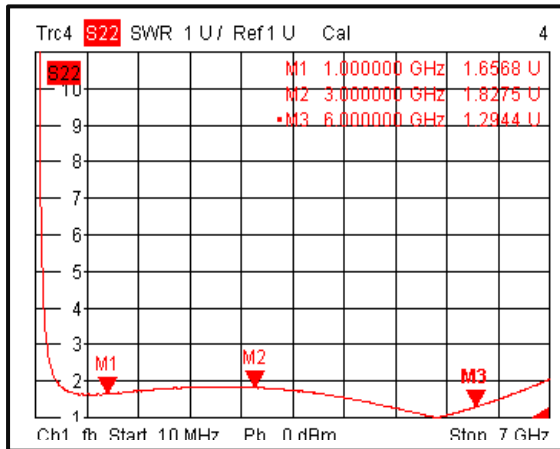
Insertion Loss @+85°C



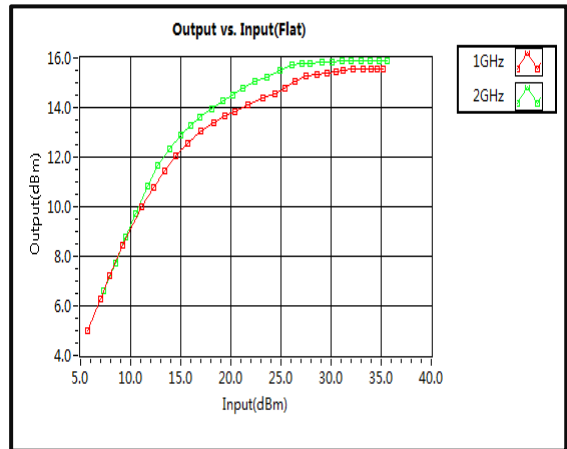
Input VSWR @+85°C



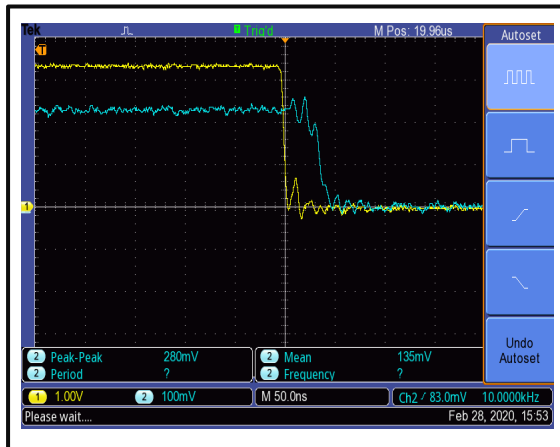
Output VSWR @+85°C



Flat Leakage Power



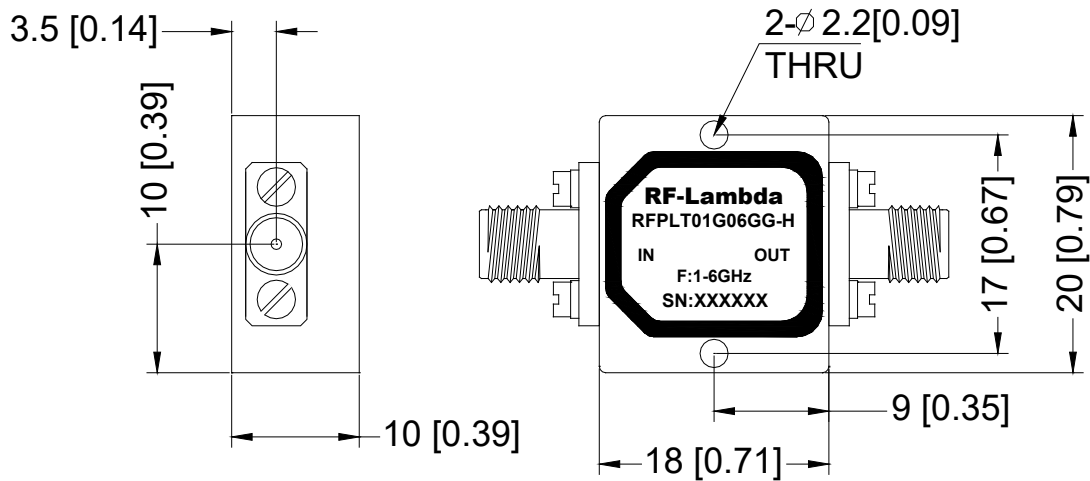
Limiting Speed



Recovery Time

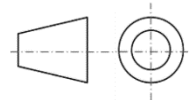


Outline Drawing



Notes:

1. Package Material: Aluminum
2. Plating: 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
RFPLT01G06GG-H	Standard	1GHz-6GHz Hermetically Sealed Power Limiter

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