

## Hermetically Sealed Wide Band Power Limiter 0.05GHz-21GHz



### Product Description

RFPLT01M20GG-H is a Hermetically Sealed wideband power limiter with a frequency range of 0.05 to 21GHz.

The max input Power of the limiter is 36dBm. The typical insertion loss is 1.2 dB and flat Leakage at > 30dBm input is 18dB.

The power limiter's connectors are SMA-female.

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

### Features

- Passive, High Isolation Limiter
- Low Insertion Loss and Good Return Loss
- High Power Handling Capability up to 36dBm

### 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<sub>A</sub>=+25°C)

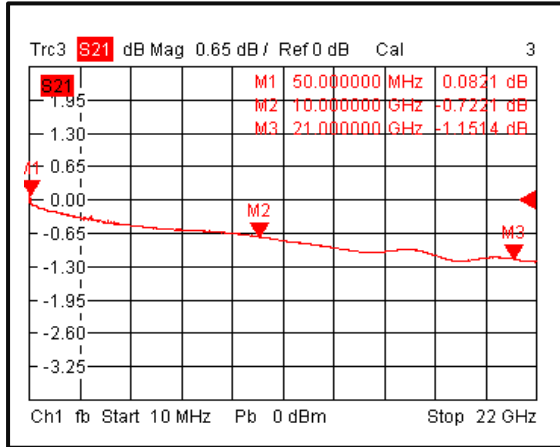
Parameter	Min	Typ	Max	Units
Frequency Range		0.05 - 21		GHz
CW Input Power			36	dBm
Peak Power Handling (1.0 μs pulse width, 1% duty cycle, ≤15 ns rise time)			40	dBm
Insertion Loss		1.2	1.3	dB
VSWR		1.6	1.8	: 1
Flat Leakage Power		18	20.5	dBm
Peak Power Leakage		20	22	dBm
Weight		0.03		lbs.
Input / Output Connectors	SMA-Female(Input)--SMA-Female(Output)			
Package	Hermetically Sealed (Laser Welded)			

**Environmental Specifications and Test Standards**

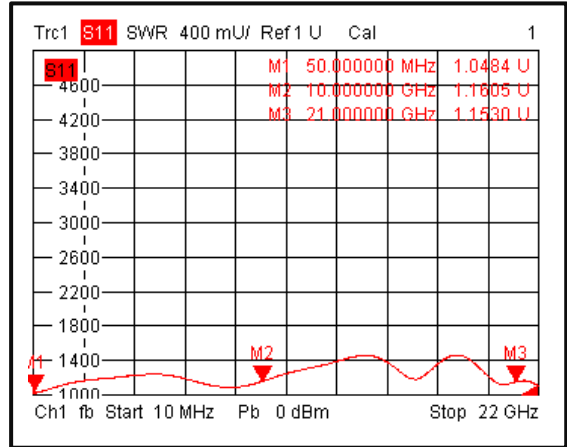
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

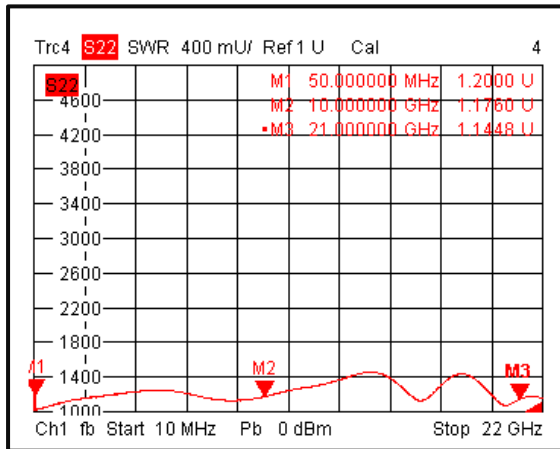
**Insertion Loss @+25°C**



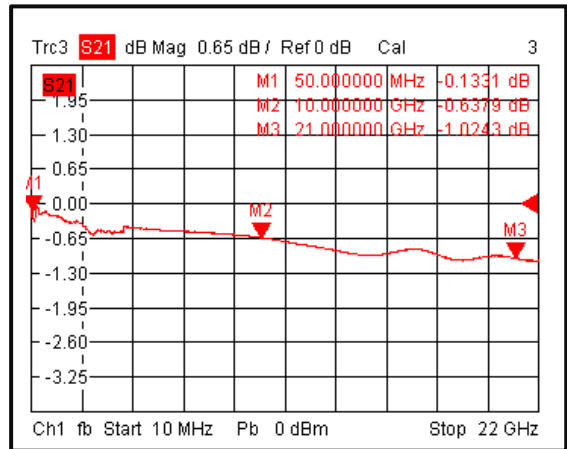
**Input VSWR @+25°C**



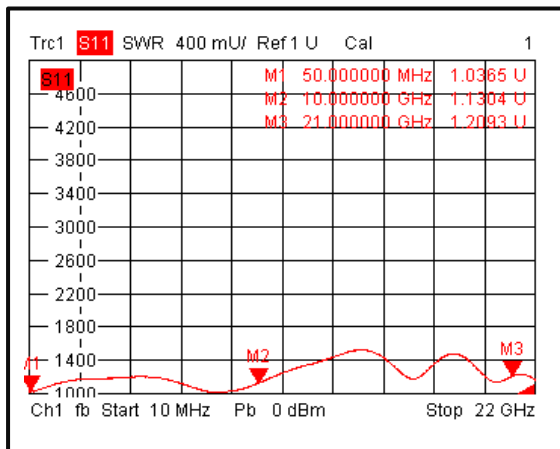
**Output VSWR @+25°C**



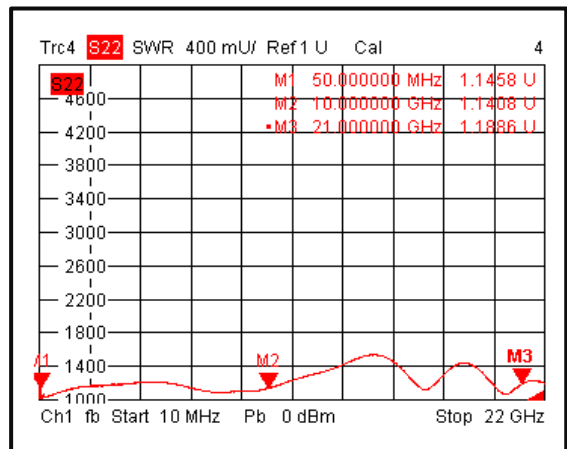
**Insertion Loss @-40°C**



**Input VSWR @-40°C**

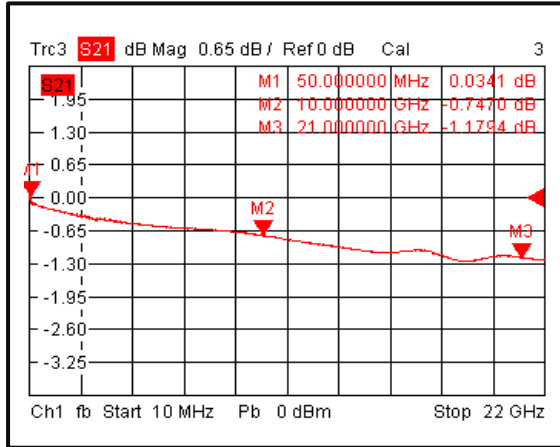


**Output VSWR @-40°C**

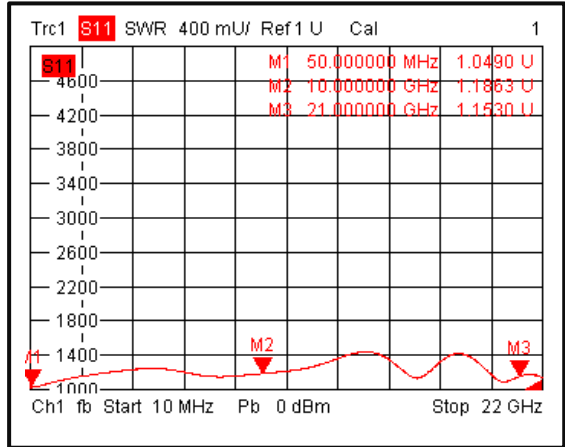


Typical Performance Plots

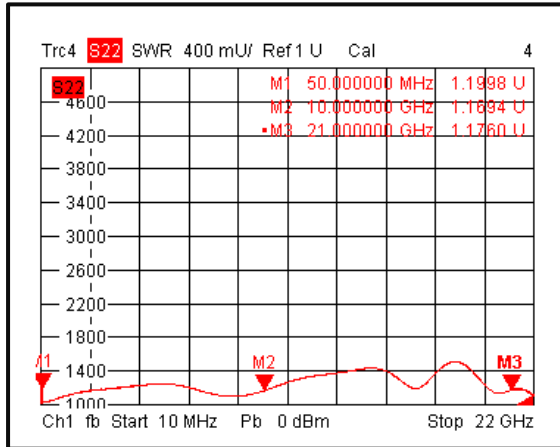
Insertion Loss @+85°C



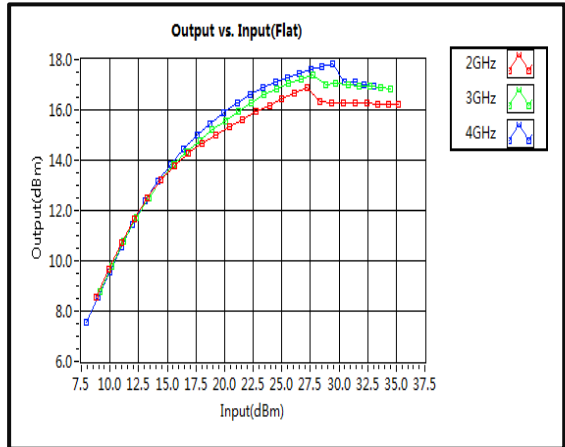
Input VSWR @+85°C



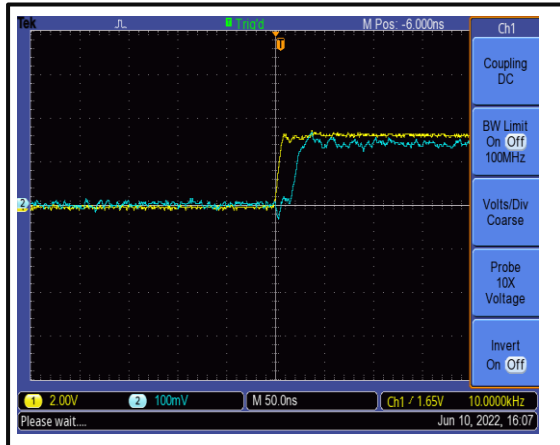
Output VSWR @+85°C



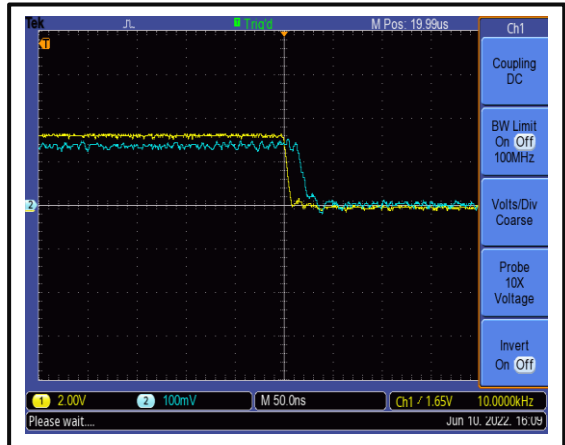
Flat Leakage Power



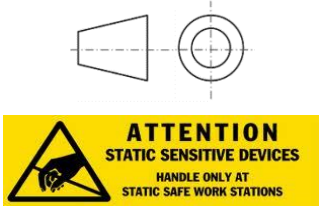
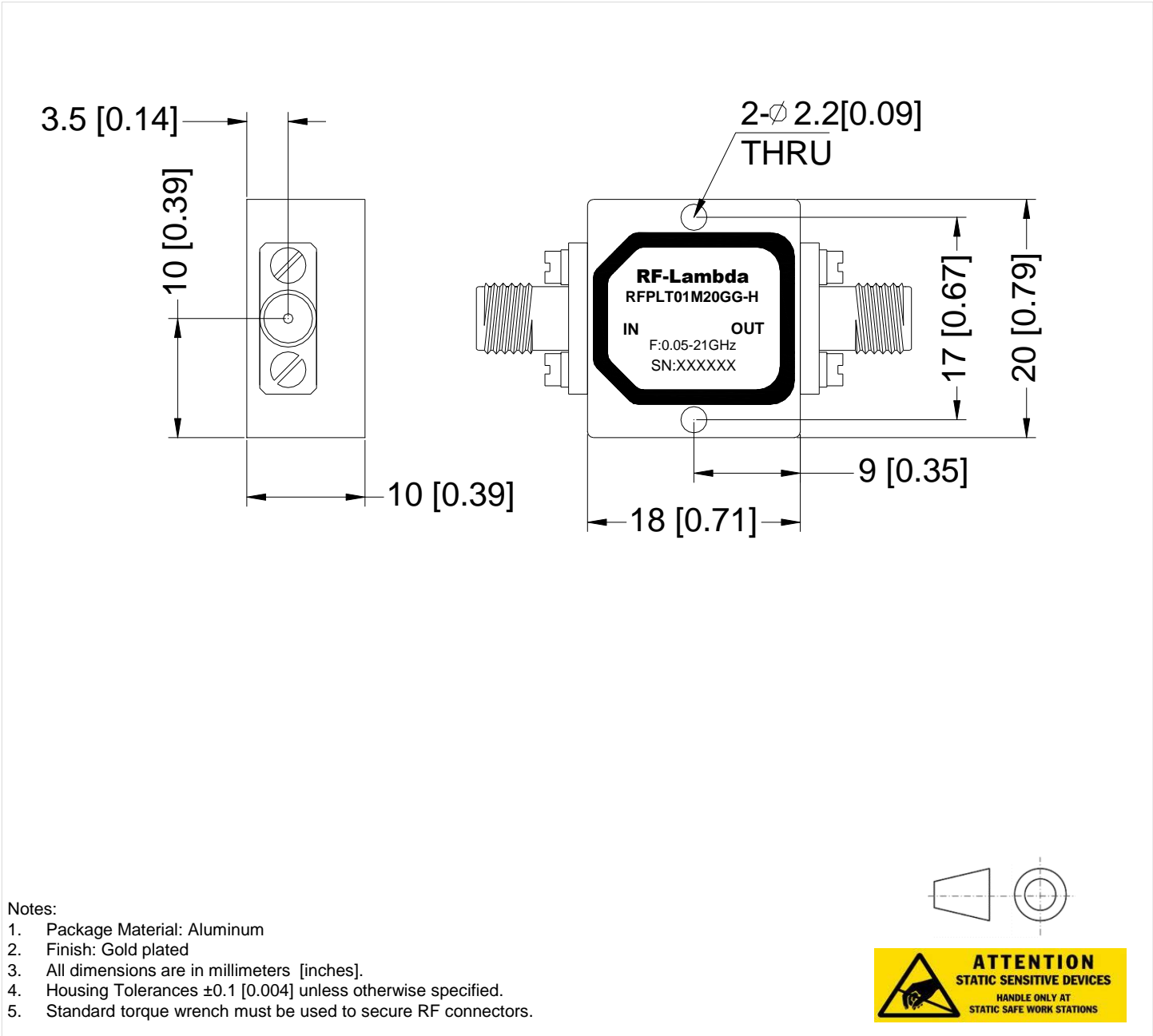
Limiting Speed



Recovery Time



**Outline Drawing**



Additional Information

Documentation	Webpage
ESD Policy	<a href="https://rflambda.com/pdf/rflambda_esd_control.pdf">https://rflambda.com/pdf/rflambda_esd_control.pdf</a>
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RFPLT01M20GG-H	Standard	0.05GHz-21GHz Hermetically Sealed Power Limiter

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