

## Wide Band Power Limiter 29GHz-39GHz



### Product Description

RFPLT29G39GG is a wideband power limiter with a frequency range of 29 to 39GHz.

The max input power of the limiter is 1.5W. The typical insertion loss is 2.0 dB and Flat Leakage at > 30dBm input is 20dB.

The power limiter's connectors are 2.92mm-female.

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

### Features

- Wide Band Power Limiter
- Passive, High Isolation Limiter
- Low Insertion Loss
- High Power Handling

### 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)

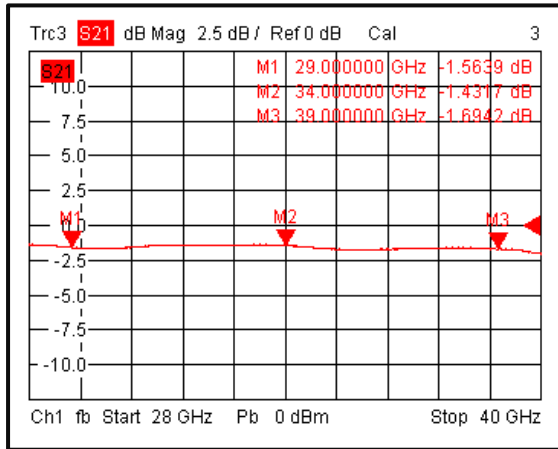
Parameter	Min	Typ	Max	Units
Frequency Range	29		39	GHz
CW Input Power( @50Ω, 25°C)		1.5		W
Peak Power (1% DC ,PW=1us @50Ω, 25°C)			10	W
Insertion Loss		2.0	2.5	dB
Insertion Loss Temperature Coefficient		0.004		dB/°C
VSWR		1.8	2	: 1
Flat Leakage @ PIN < 30 dBm		20	20.5	dBm
Peak Power Leakage @ PIN < 30 dBm (10% DC ,PW=1us )		20	21	dBm
Weight		0.03Max.		lbs.
Input / Output Connectors	2.92mm-Female(Input) – 2.92mm-Female(Output)			
Package	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

**Environmental Specifications and Test Standards**

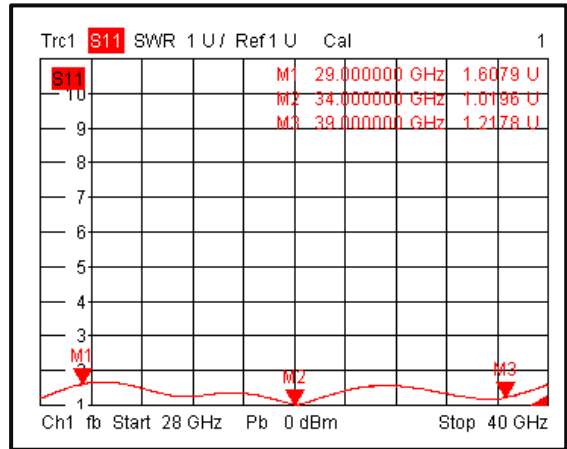
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for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

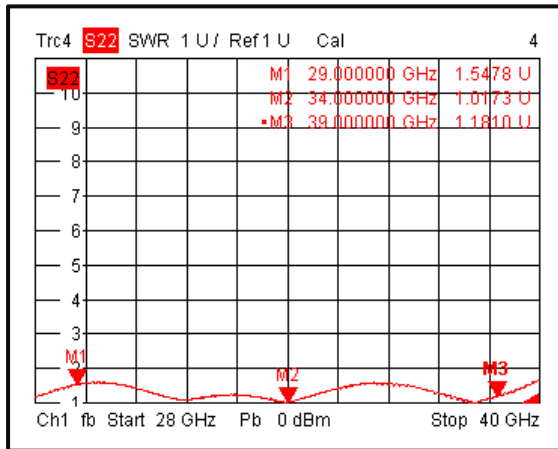
Insertion Loss @+25°C



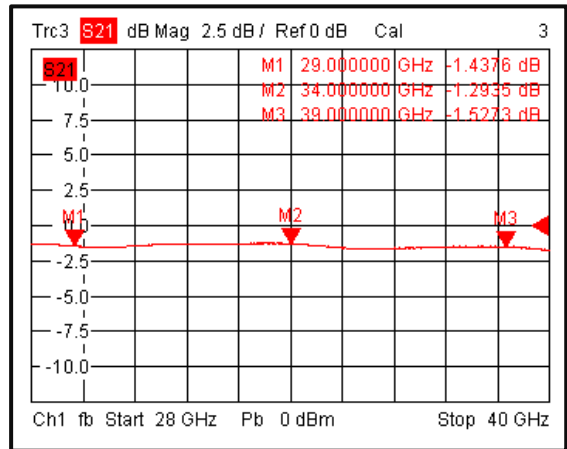
Input VSWR @+25°C



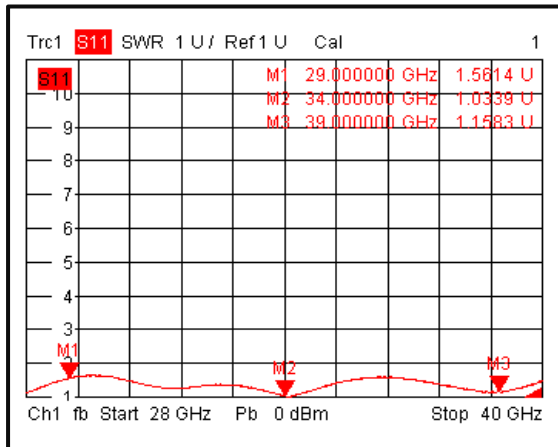
Output VSWR @+25°C



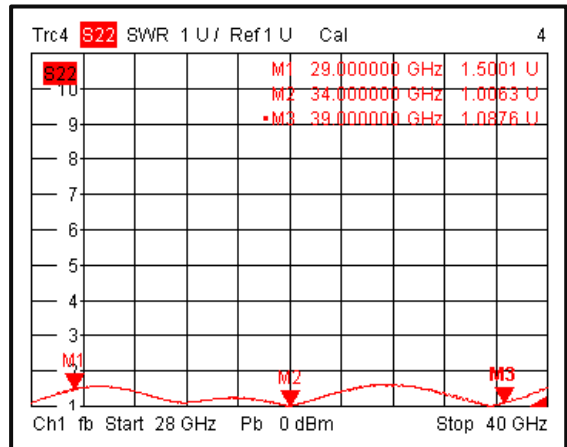
Insertion Loss @-40°C



Input VSWR @-40°C

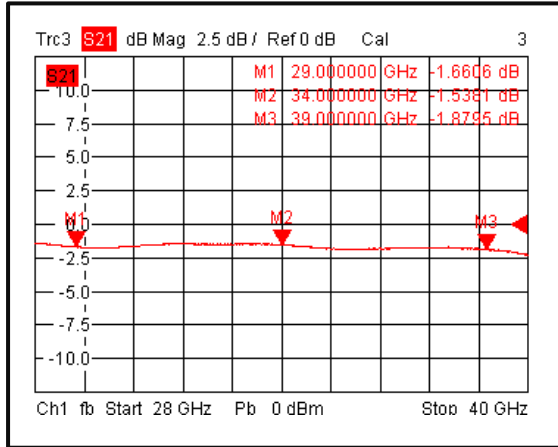


Output VSWR @-40°C

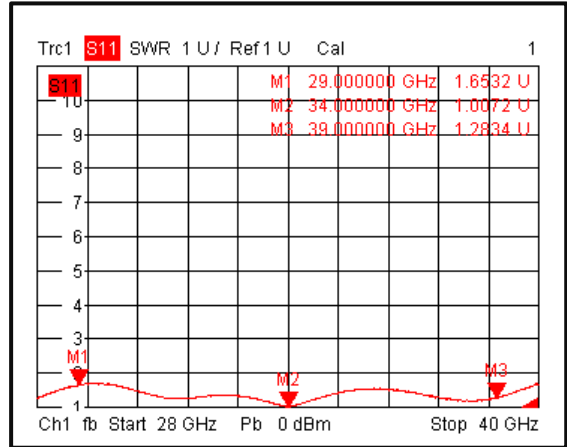


Typical Performance Plots

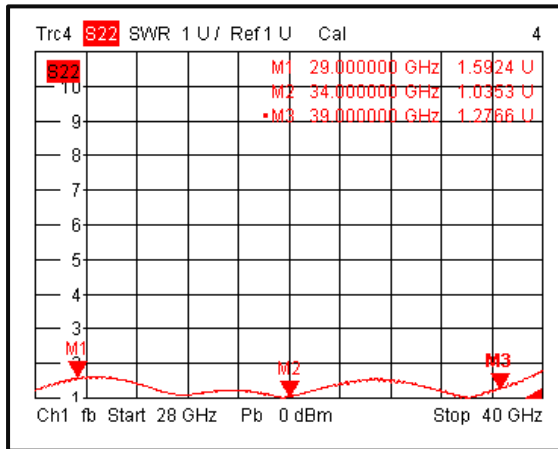
Insertion Loss @+85°C



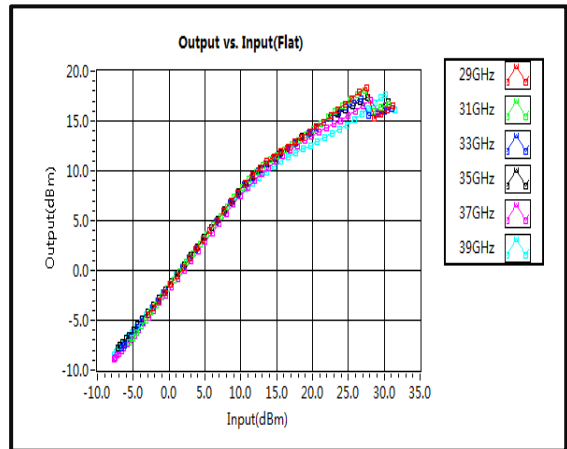
Input VSWR @+85°C



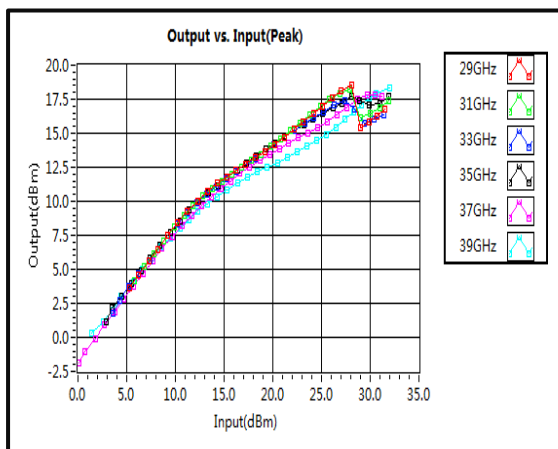
Output VSWR @+85°C



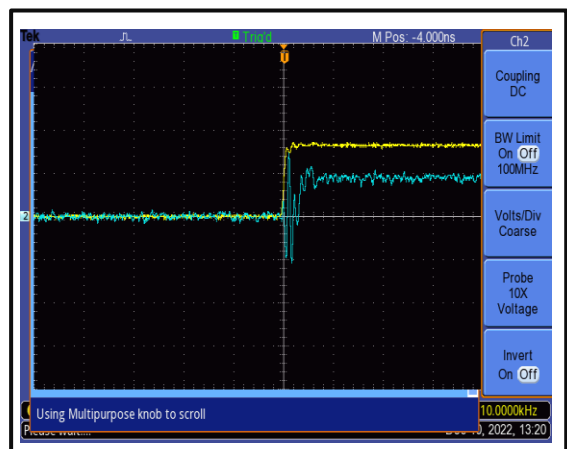
Flat Leakage Power



Peak Power Leakage

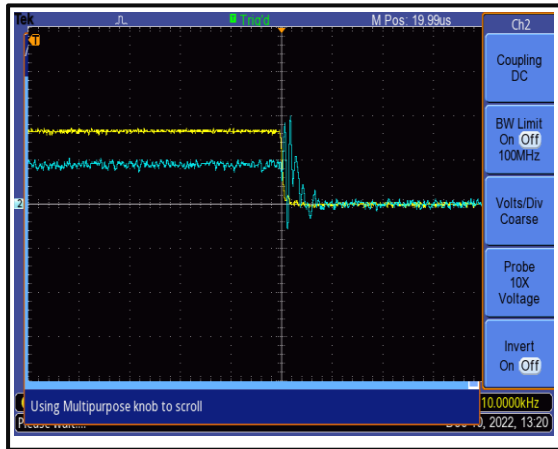


Speed

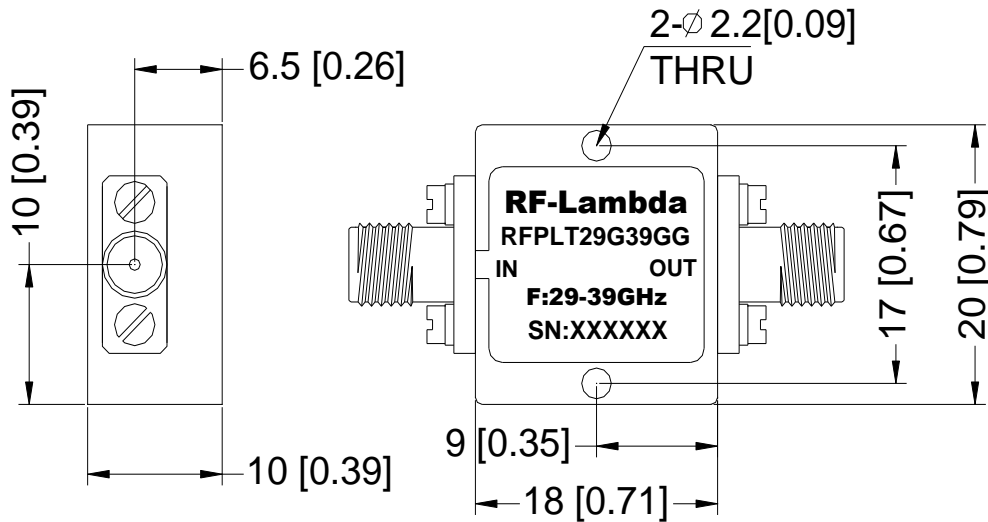


Typical Performance Plots

Speed

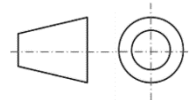


**Outline Drawing**



Notes:

1. Package Material: Aluminum
2. Finish: Gold Plated
3. All dimensions are in millimeters [inches].
4. Housing Tolerances  $\pm 0.1$  [0.004] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



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
RFPLT29G39GG	Connectors 2.92mm-Female	29GHz-39GHz Power Limiter

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