



## Compact Benchtop Amplifier, 60 to 90 GHz, 25 dB Gain, +20 dBm P<sub>SAT</sub>

### Description:

**Model STB-6039032516-1212-S1-C** is a compact benchtop amplifier with a typical small signal gain of 25 dB and a nominal P<sub>1dB</sub> of +16 dBm and +20 dBm P<sub>SAT</sub> across the frequency range of 60 to 90 GHz, respectively. The input required to saturate the amplifier is 0 dBm typically. An AC to DC power adapter is provided so that the power supply required is a single phase AC voltage in the range of 100 to 240 V<sub>AC</sub>, which can be supplied by a wall outlet or lab benches. The fan helps to keep the amplifier working around room temperature. The input and output ports are WR-12 waveguides with standard UG-387/U anti-cocking flanges.



### Features:

- Full Waveguide Band Coverage
- High Gain
- High Output Power

### Applications:

- Communication Systems
- Bench Top Power Amplification
- Test Equipment

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	60 GHz		90 GHz
Gain		25 dB	
P <sub>1dB</sub>		+16 dBm	
P <sub>sat</sub>		+20 dBm	
P <sub>in</sub>			+10 dBm
Port Return Loss		10 dB	
Power Supply (AC Adapter Provided)	100 V <sub>AC</sub>		240 V <sub>AC</sub>
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

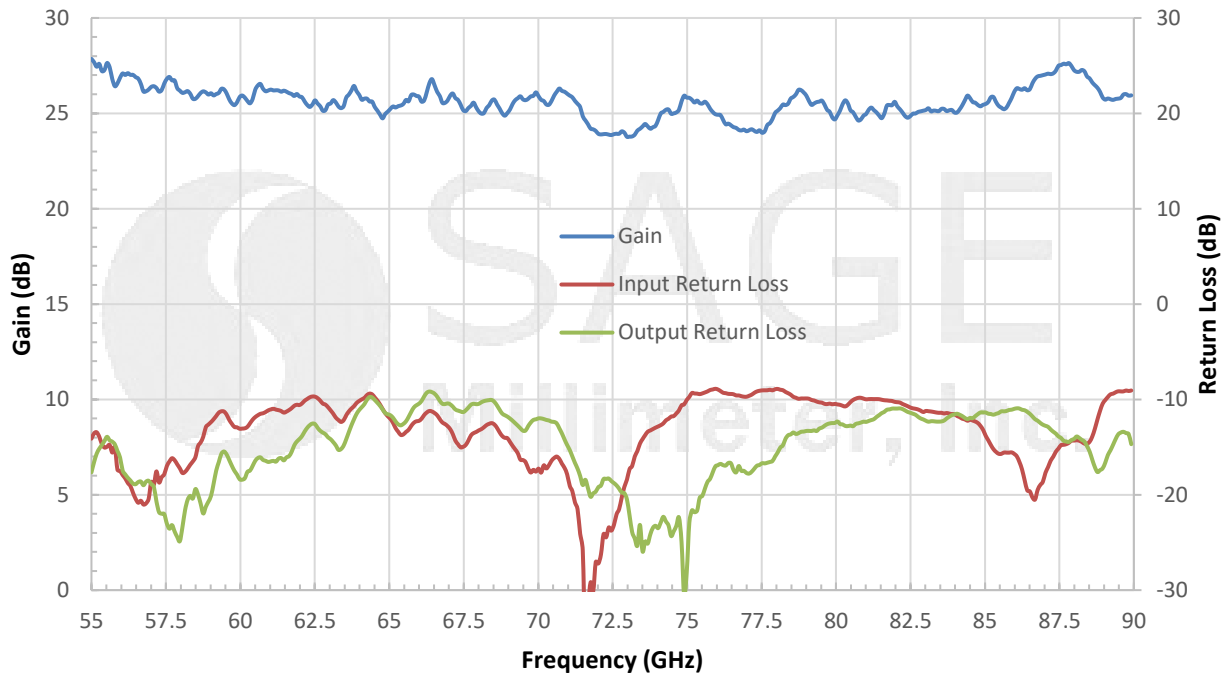
### Mechanical Specifications:

Item	Specification
RF Ports	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
DC Bias	2.5 mm DC Jack (AC-to-DC power converter included)
Enclosure Material	Extruded Aluminum
Finish	Various
Weight	1.5 lbs
Size	2.36" (W) x 2.36" (L) x 4.10" (H)
Outline	TB-SE-A-C

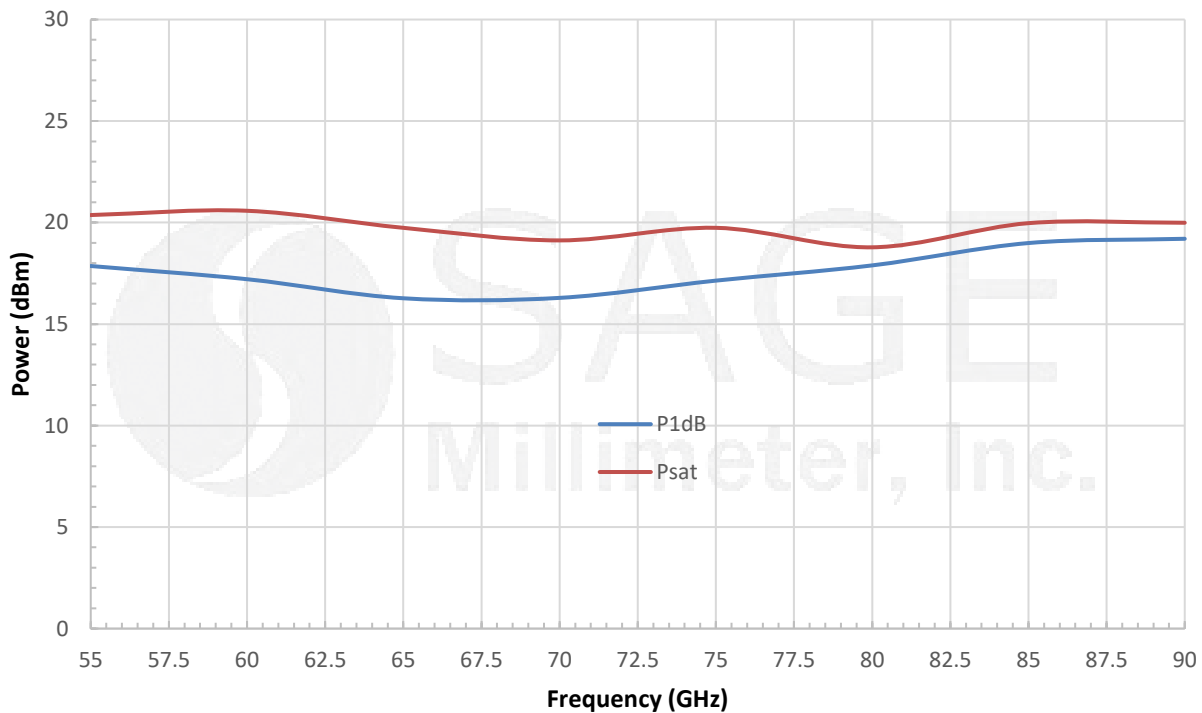


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### Typical Gain and Return Loss vs. Frequency



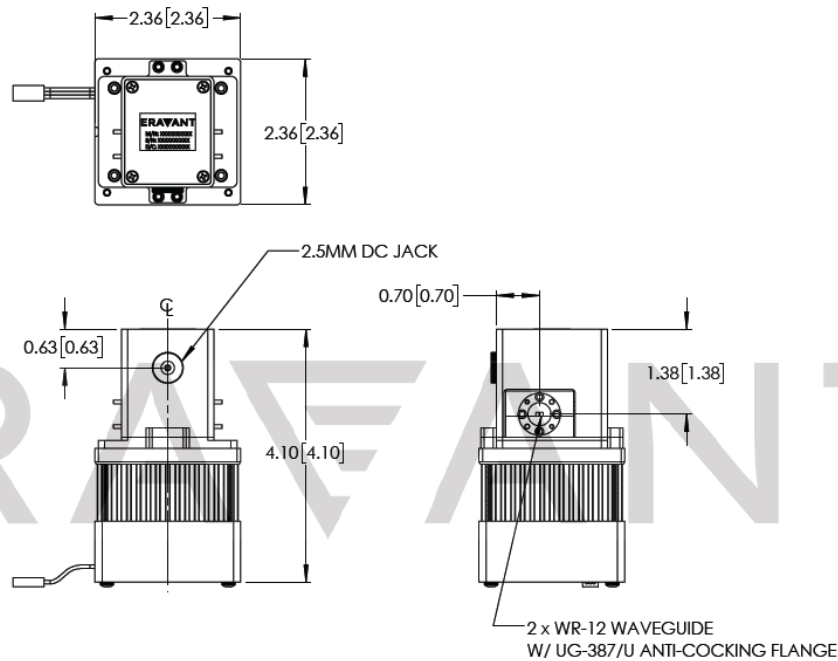
### Typical Power vs. Frequency





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**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- AC-to-DC power adapter with cord is included.
- Other mechanical configurations are available under different model numbers.
- Eravant, Inc. reserves the right to change the information presented without notice.

### Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- The case temperature of the device shall never exceed +50 °C. Use proper heatsink or fan if necessary.

