



Bench Top Amplifier, 60 to 90 GHz, 20 dB Gain, +12 dBm P_{1dB}

Description:

Model STB-6039032012-1212-S1 is a broadband benchtop driver amplifier with a typical small signal gain of 20 dB, a nominal P_{1dB} of +12 dBm, and P_{sat} of +16 dBm across the frequency range of 60 to 90 GHz. The power supply required is a single phase AC voltage in the range of 100 to 240 V_{AC}, which can be supplied by a wall outlet. The LED light helps to indicate the working status of the amplifier. The input and output port configurations are both WR-12 waveguides with UG-387/U flanges.



Features:

- Full Waveguide Band Coverage
- Good Gain Flatness

Applications:

- Bench Top Power Amplification
- Antenna Range
- Power Boosting

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	60 GHz		90 GHz
Gain		20 dB	
P _{1dB}		+12 dBm	
P _{sat}		+16 dBm	
P _{in}			0 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
Power Supply (AC Adapter Provided)	100 V _{AC}		240 V _{AC}
Specification Temperature		+25 °C	
Case Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input	WR-12 Waveguide with UG-387/U Flange
Output	WR-12 Waveguide with UG-387/U Flange
DC Bias	2.5 mm DC Jack (AC-to-DC power converter included)
DC Bias Switch	On-Off Rocker Switch with Indicator Light
Enclosure Material	Extruded Aluminum
Finish	Black Anodized
Weight	3 lbs
Size	4.72" (W) x 5.51" (L) x 2.81" (H)
Outline	TB-SE

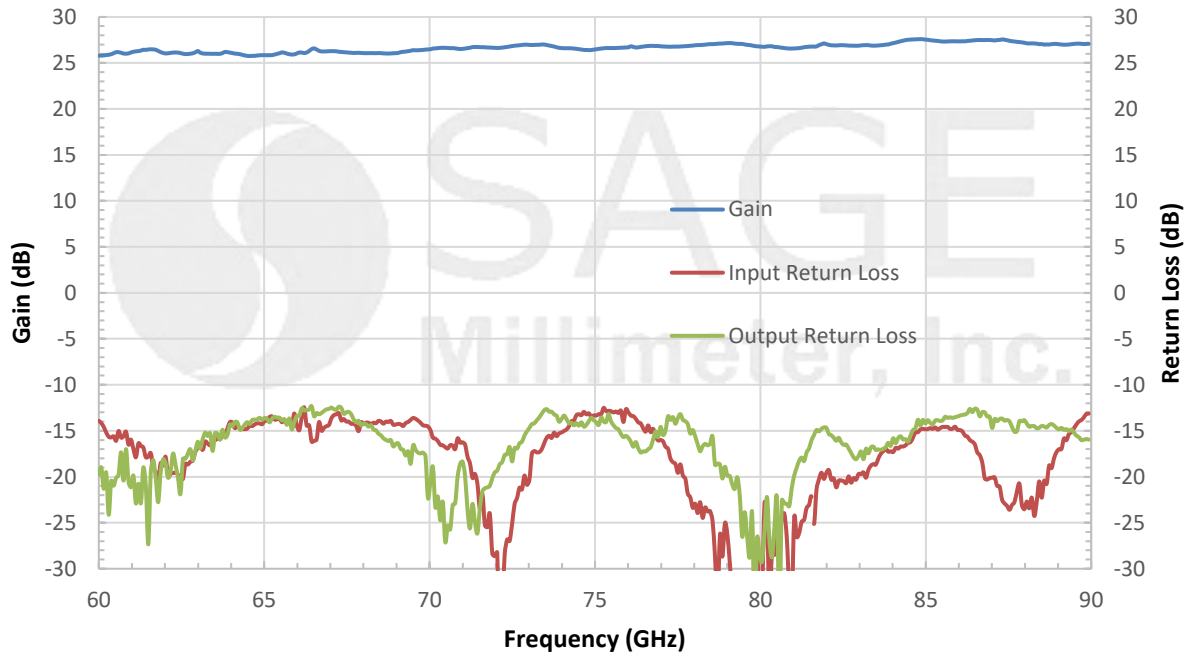




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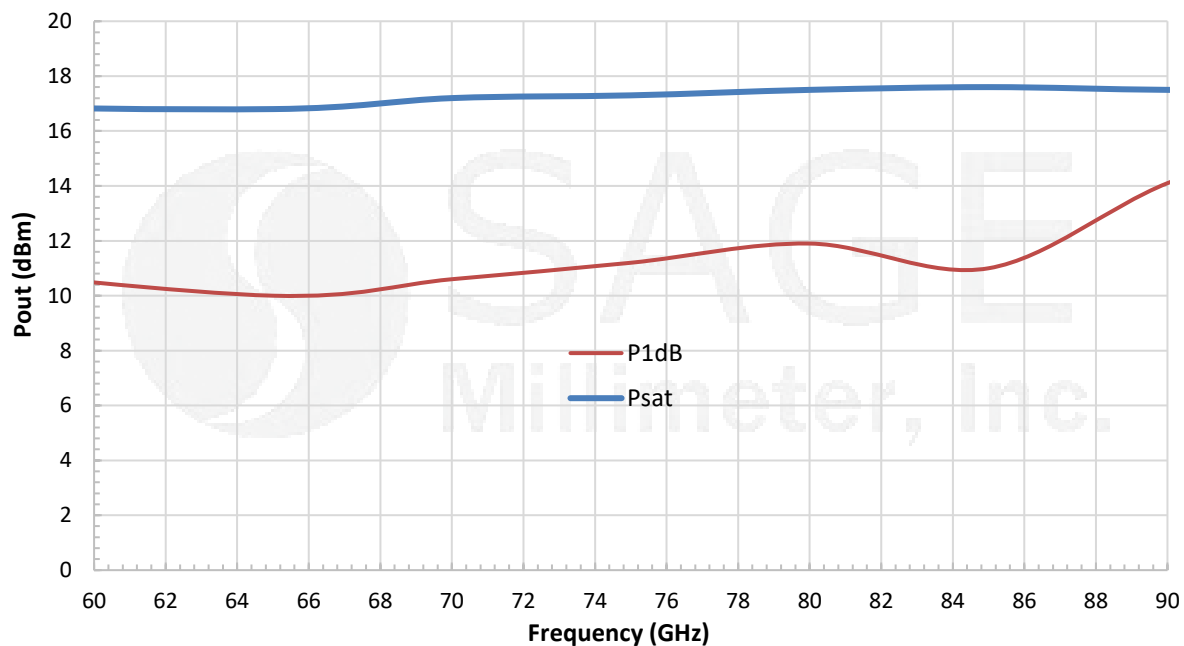
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/262 mA



Typical Output Power vs. Frequency

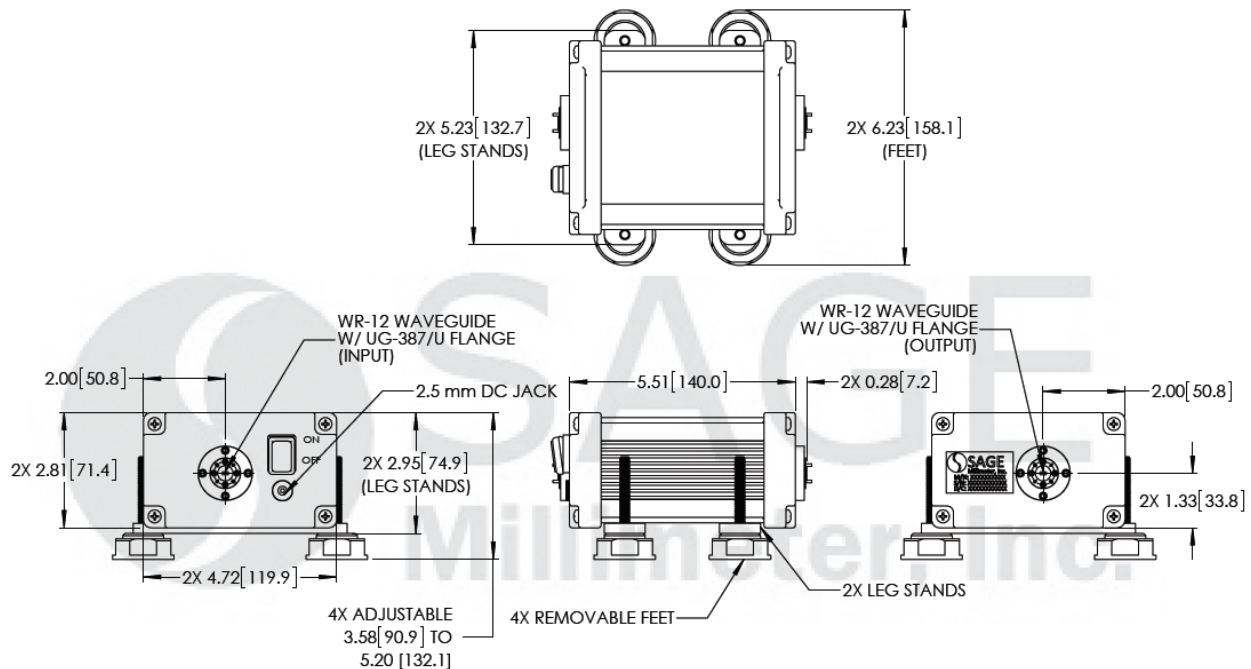
Bias: +8 V_{DC}/250 mA





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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.
- Other mechanical configurations are available under different model numbers.
- SAGE Millimeter, 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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The case temperature of the device shall never exceed +50°C. Use proper heatsink or fan if necessary.

