SBP-5836233126-1515-E1

Rev. 1.0

V-Band Power Amplifier, 58 to 62 GHz, 31 dB Gain, +26 dBm P_{1dB}

Description:

Model SBP-5836233126-1515-E1 is designed and manufactured for secure communication systems. This product is a power amplifier with a typical small signal gain of 31 dB and a nominal P_{1dB} of +26 dBm across the frequency range of 58 to 62 GHz. The saturated output power of the amplifier is +27 dBm. The DC power requirement for the amplifier is +8 V_{DC}/1.6 A. The mechanical configuration offers an in line structure with WR-15 waveguides and UG-385/U anti-cocking flanges. Other port configurations, such as with 1 mm connectors or a right angle structure with WR-15 waveguides, are also available under different model numbers.

Features:

- Broadband Performance
- High Output Power
- High Gain and Good Gain Flatness

Applications:

- Secure Communication Systems
- IEEE 802.11ab WiGig
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	58 GHz		62 GHz
Gain		31 dB	
P_{1dB}		+26 dBm	
P_{sat}		+27 dBm	
P_{in}			+22 dBm
Input Return Loss		10 dB	
Output Return Loss		8 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		1.6 A	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Output Port	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
Size	1.10” (W) X 1.50” (L) X 0.75” (H)
Outline	BG-SV-2-A

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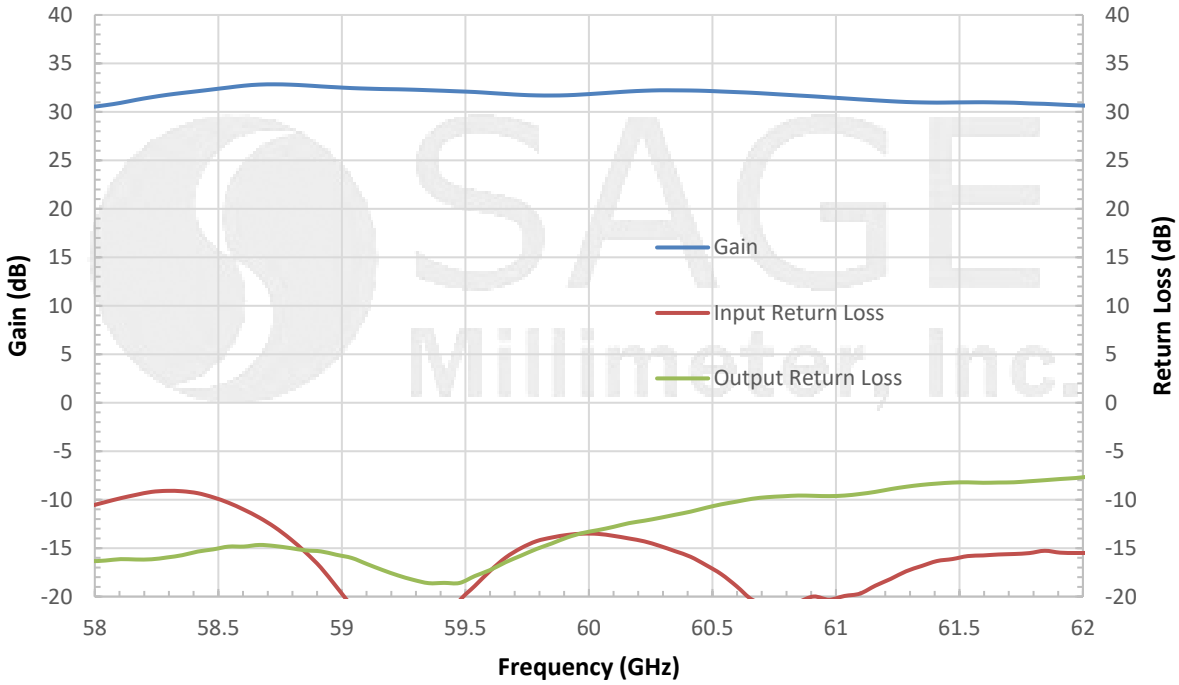
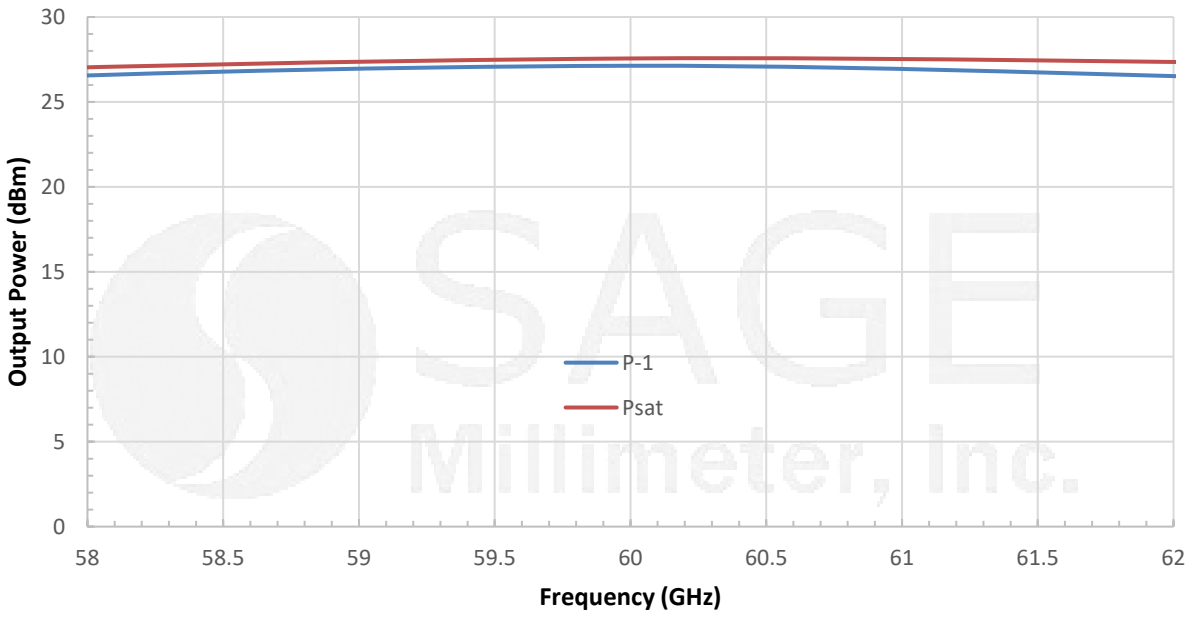
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/1.6A



Output Power vs. Frequency

Bias: +8 V_{DC}/ 2.5A



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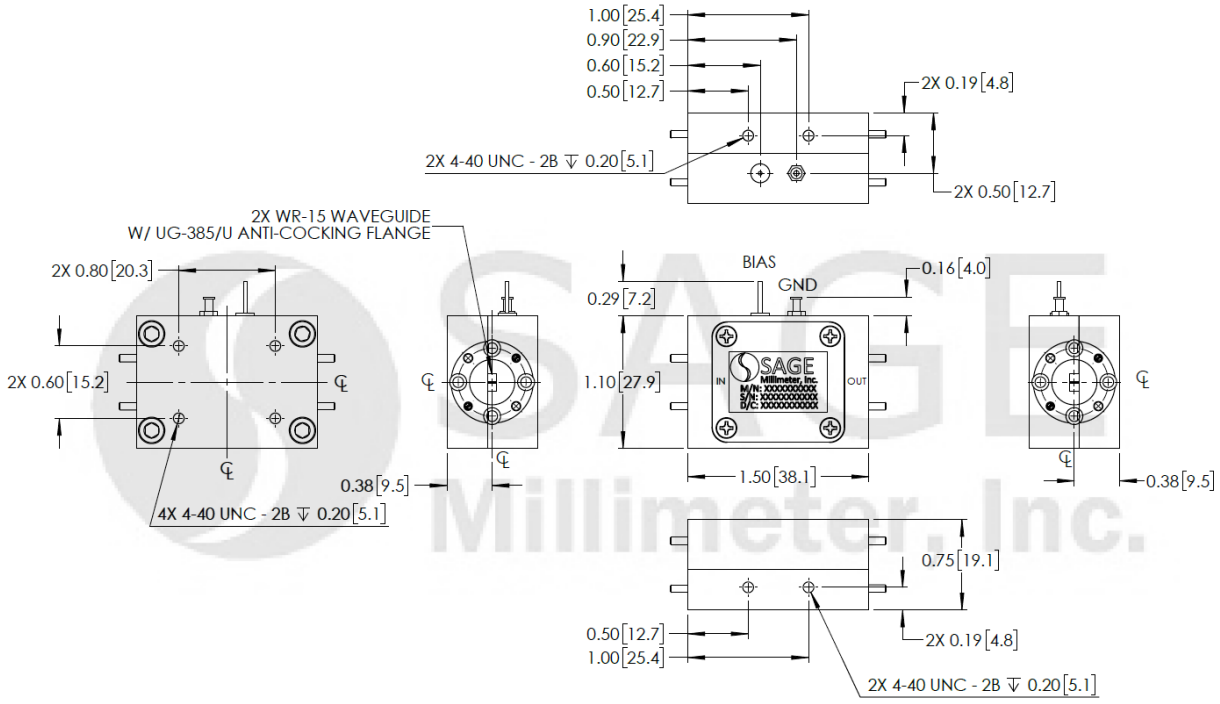
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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.
- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

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.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device.