

W-Band Power Amplifier, 65 to 110 GHz, 15 dB Gain, 13 dBm P_{1dB}

Description:

Model SBP-6531141513-1010-E1 is a GaN based high power amplifier with a typical small signal gain of 15 dB and a nominal P_{1dB} of +13 dBm across the frequency range of 65 to 110 GHz. The DC power requirement for the amplifier is +10 V_{DC}/480 mA. The mechanical configuration offers an in line structure with WR-10 waveguides and UG-387/U-M anti-cocking flanges. Other port configurations, such as with 1 mm connectors or a right angle structure with WR-10 waveguides, are also available under different model numbers.



Features:

- High Output Power
- High Power Added Efficiency (PAE)

Applications:

- Test Instrumentation
- Communication Systems
- Radar Systems

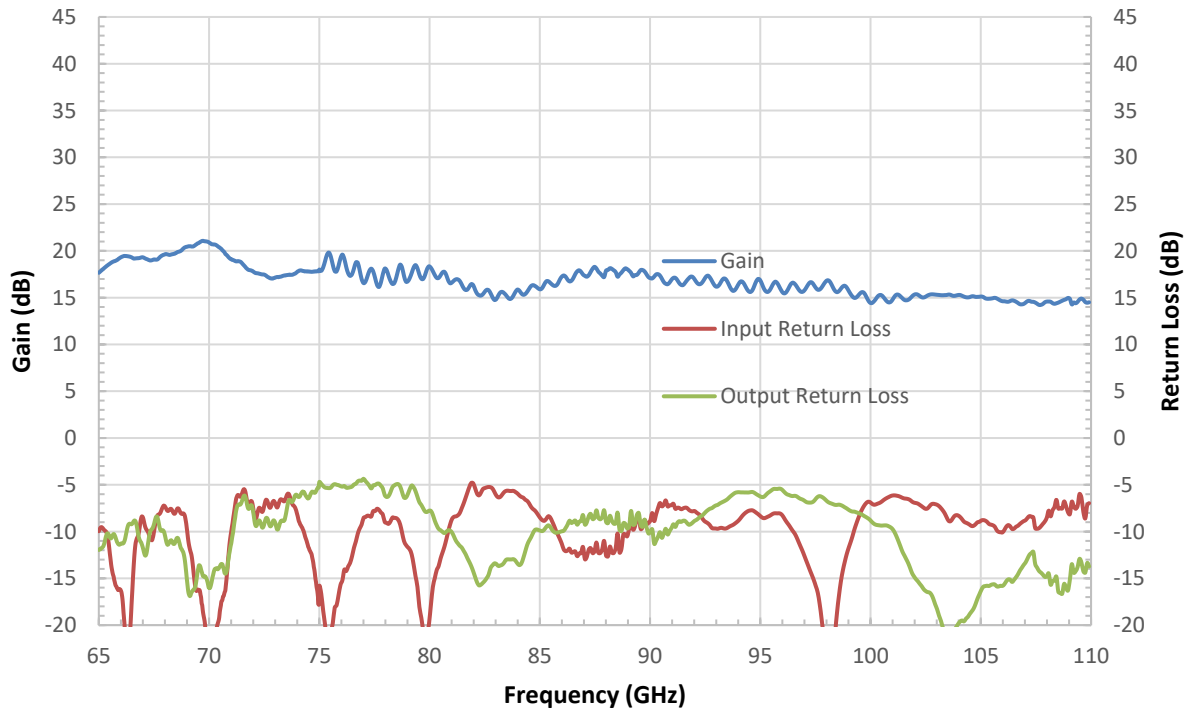
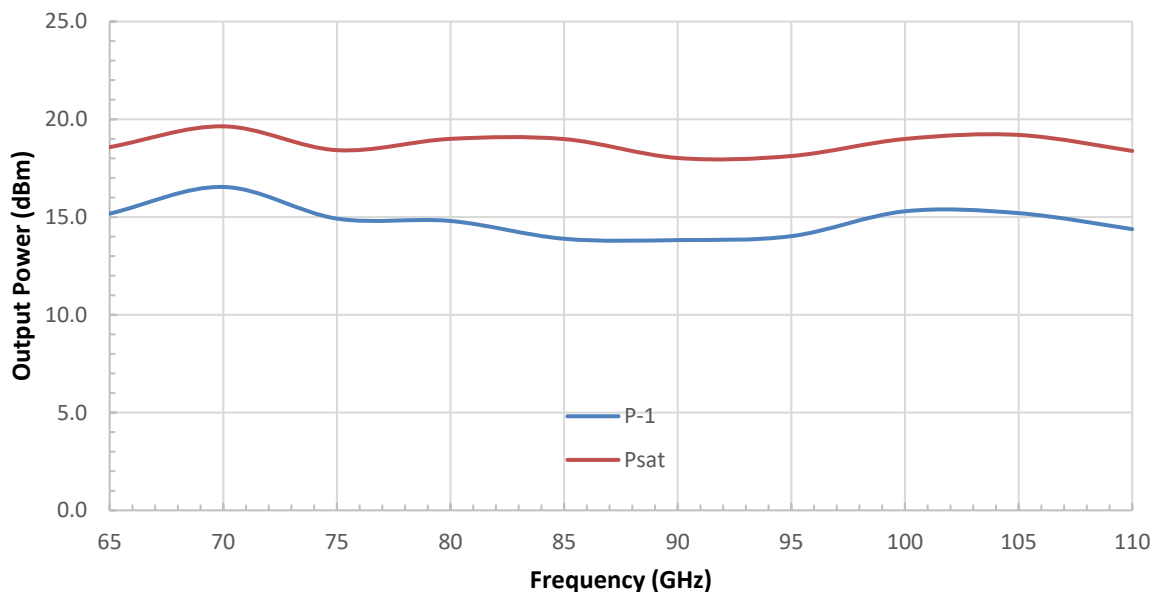
Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|--------------------|---------------------|---------------------|
| Frequency | 65 GHz | | 110 GHz |
| Gain | | 15 dB | |
| P _{1dB} | | +13 dBm | |
| P _{sat} | | +18 dBm | |
| P _{in} | | | +20 dBm |
| Input Return Loss | | 10 dB | |
| Output Return Loss | | 10 dB | |
| DC Voltage | +9 V _{DC} | +10 V _{DC} | +15 V _{DC} |
| DC Supply Current | | 480 mA | |
| Specification Temperature | | +25 °C | |
| Operating Temperature | 0 °C | | +50 °C |

Mechanical Specifications:

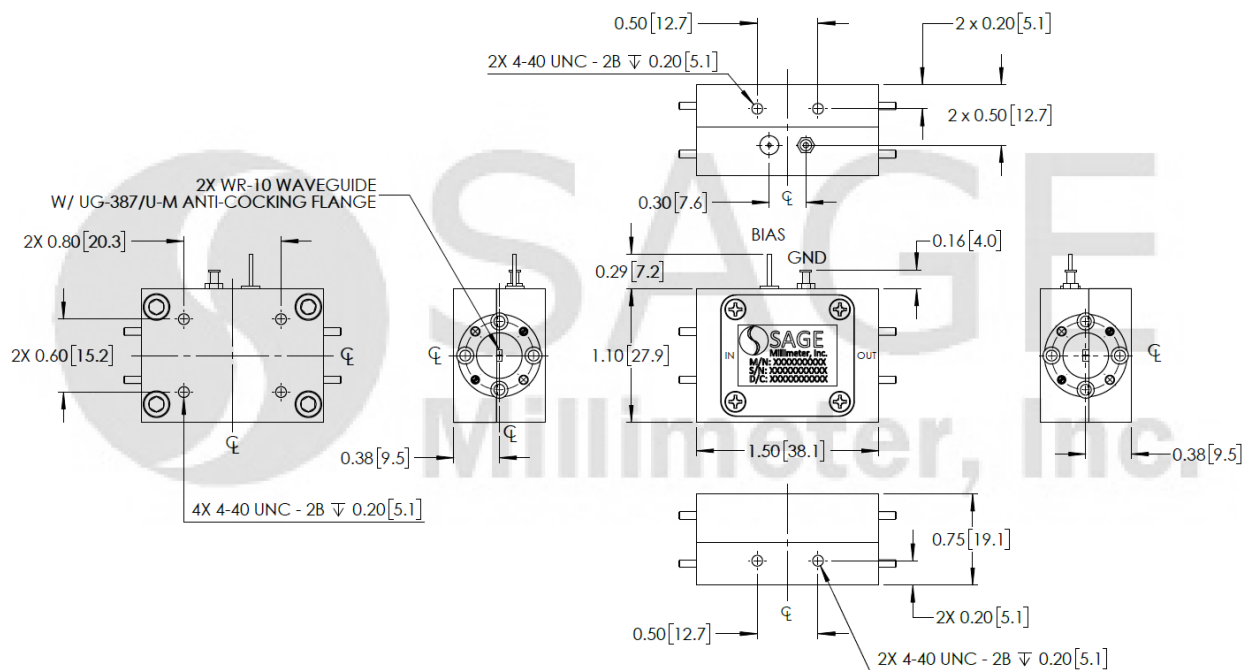
| Item | Specification |
|---------------|-----------------------------------------------------|
| Input Port | WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange |
| Output Port | WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange |
| Bias | Solder Pin |
| Case Material | Aluminum |
| Finish | Gold Plated |
| Weight | 1.6 Oz |
| Size | 1.10" (W) X 1.50" (L) X 0.75" (H) |
| Outline | BG-SW-2-A |



**W-Band Power Amplifier, 65 to 110 GHz, 15 dB Gain, 13 dBm P_{1dB}****Typical Gain and Return Loss vs. Frequency**Bias: +10 V_{DC}/472 mA**Output Power vs. Frequency**Bias: +10 V_{DC}/472 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, slightly.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers.
- Eravant 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.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device.