



D-Band Power Amplifier, 110 to 150 GHz, 25 dB Gain, 10 dBm P_{1dB}

Description:

Model SBP-1141543010-0606-E1 is a D-band power amplifier with a typical small signal gain of 25 dB and a typical P_{1dB} of 10 dBm across the frequency range of 110 to 150 GHz. The DC power requirement for the amplifier is +8 V_{DC}/400 mA. The input and output port configuration offers an inline structure with WR-06 waveguides and UG-387/U-M anti-cocking flanges. Other port configurations are available under different model numbers.



Features:

- High Gain and Output Power

Applications:

- Test Equipment
- Communication Systems
- Radar Systems

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|--------------------|--------------------|---------------------|
| Frequency | 110 GHz | | 150 GHz |
| Gain | | 25 dB | |
| P _{1dB} | | +10 dBm | |
| P _{sat} | | +13 dBm | |
| P _{in} | | | -7 dBm |
| Input Return Loss | | 6 dB | |
| Output Return Loss | | 8 dB | |
| DC Voltage | +6 V _{DC} | +8 V _{DC} | +12 V _{DC} |
| DC Supply Current | | 400 mA | |
| Specification Temperature | | +25 °C | |
| Operating Temperature | 0 °C | | +50 °C |

Mechanical Specifications:

| Item | Specification |
|---------------|---|
| Input | WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange |
| Output | WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange |
| Bias | Solder Pin |
| Case Material | Aluminum |
| Finish | Gold Plated |
| Weight | 1.6 Oz |
| Size | 1.40" (L) X 1.00" (W) X 0.75" (H) |
| Outline | BG-SD-2-A |

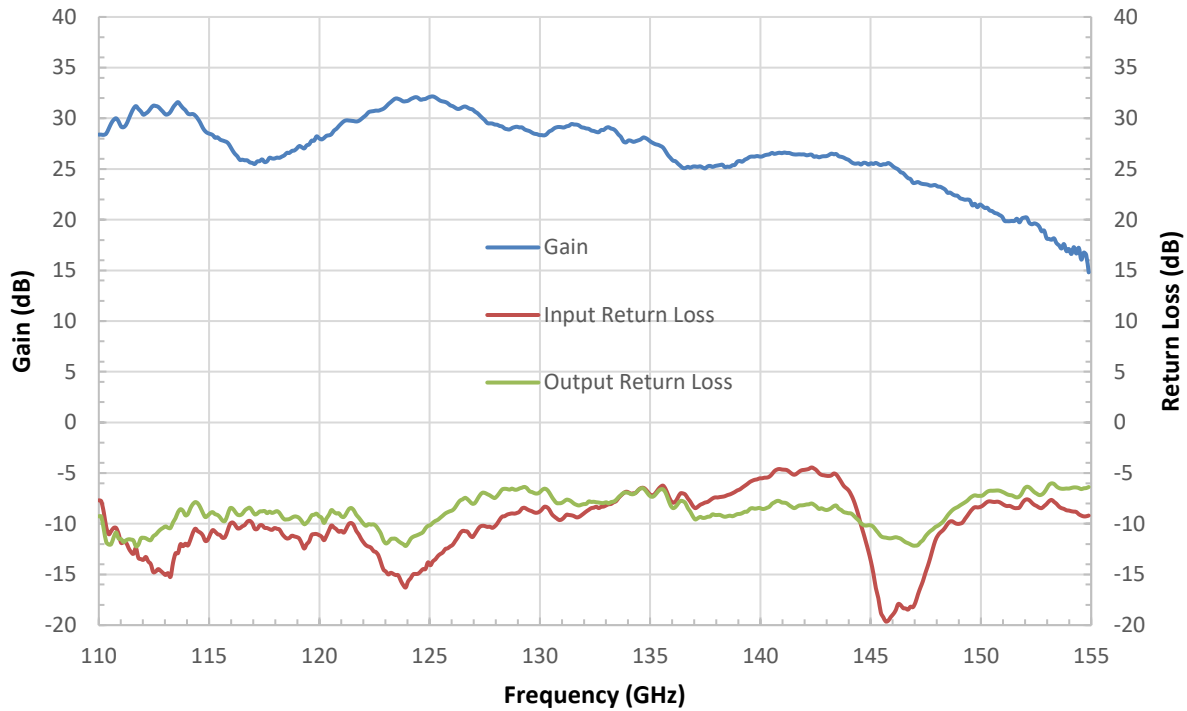




D-Band Power Amplifier, 110 to 150 GHz, 25 dB Gain, 10 dBm P_{1dB}

Gain and Return Loss vs. Frequency

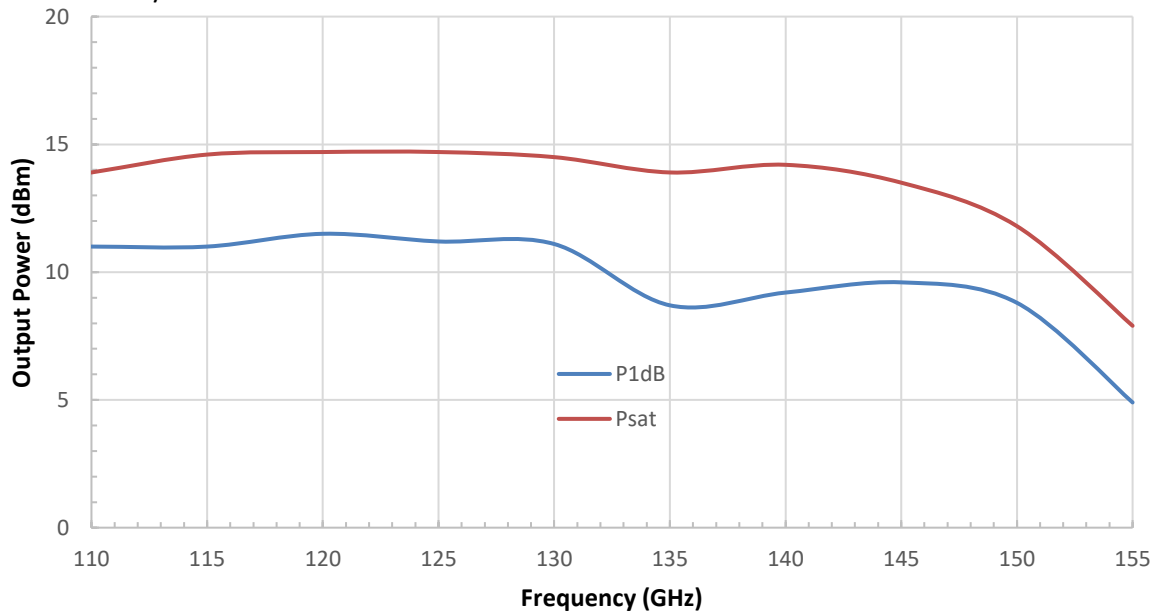
Bias: +8 V_{DC}/422 mA



Output Power vs. Frequency

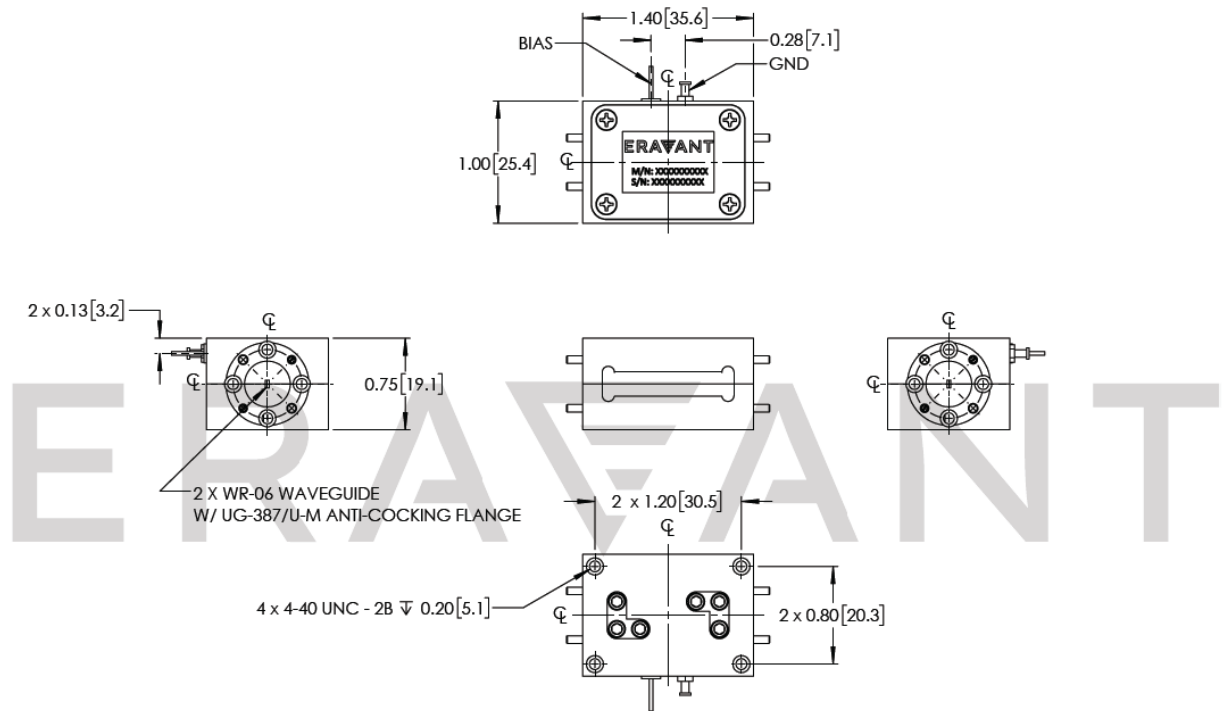
Bias: +8 V_{DC}/422 mA

RFsat: +8 Vdc/ 430 mA



D-Band Power Amplifier, 110 to 150 GHz, 25 dB Gain, 10 dBm P_{1dB}

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.

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.

