SBP-1141741510-0606-E1

D-Band Power Amplifier, 110 to 170 GHz, 22 dB Gain, 14 dBm P1dB

SBP-1141741510-0606-E1 is a D-band power amplifier with a typical small signal gain of 22 dB and a nominal P1dB of 14 dBm across the frequency range of 110 to 170 GHz. The DC power requirement for the amplifier is +12 VDC/230 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.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	110 GHz		170 GHz
Gain		22 dB	
P_{1dB}		+14 dBm	
P_{sat}		+20 dBm	
P_{in}			+15 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+11 V_{DC}	+12 V_{DC}	+15 V_{DC}
DC Supply Current		230 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

ECCN

3A001.b.4

FEATURES

- Low Power Consumption

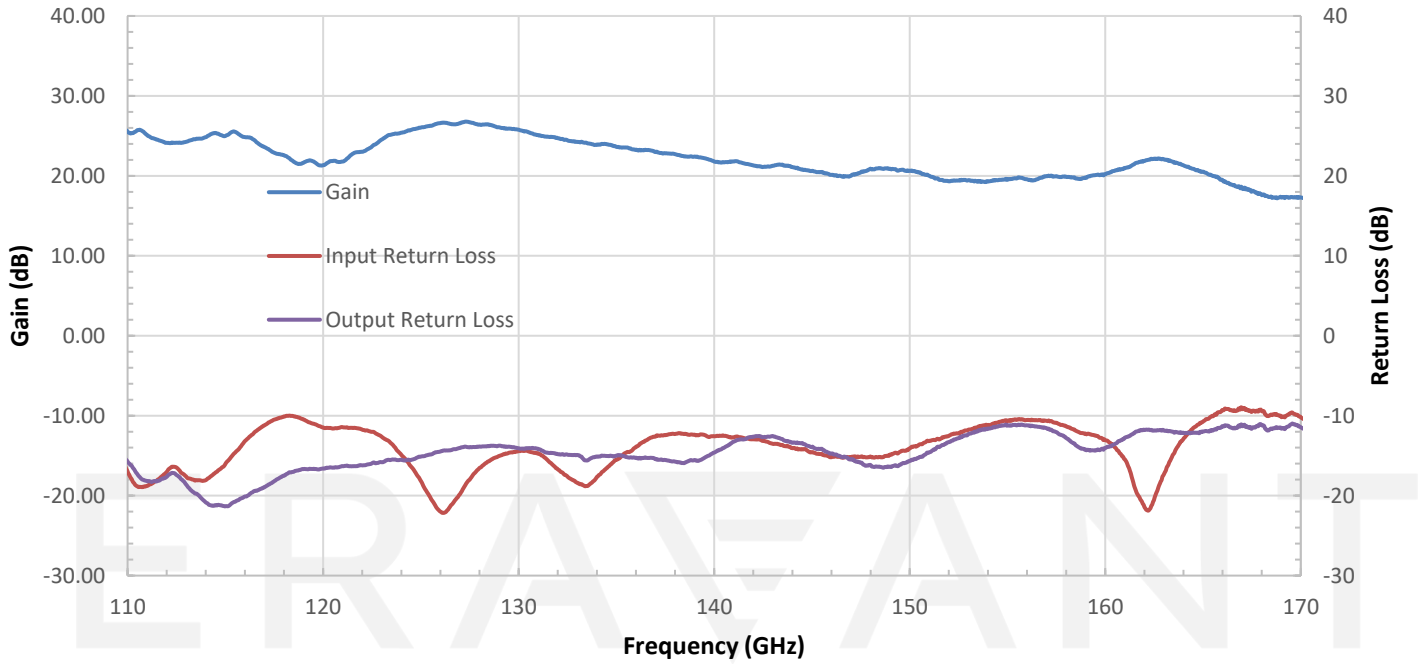
APPLICATIONS

- D-Band Passive Imaging
- Communication Systems
- Radar Systems

SUPPLEMENTAL DETAILS

Gain and Return Loss vs. Frequency

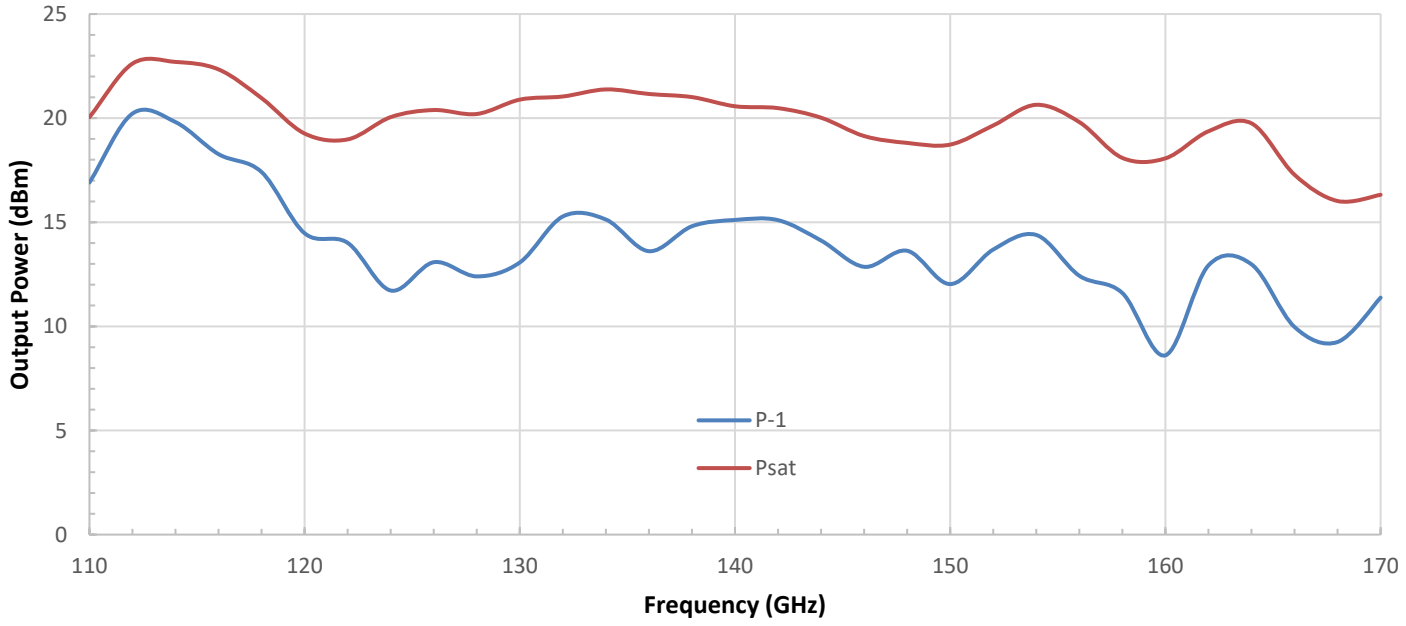
Bias: +12 V_{DC}/220 mA



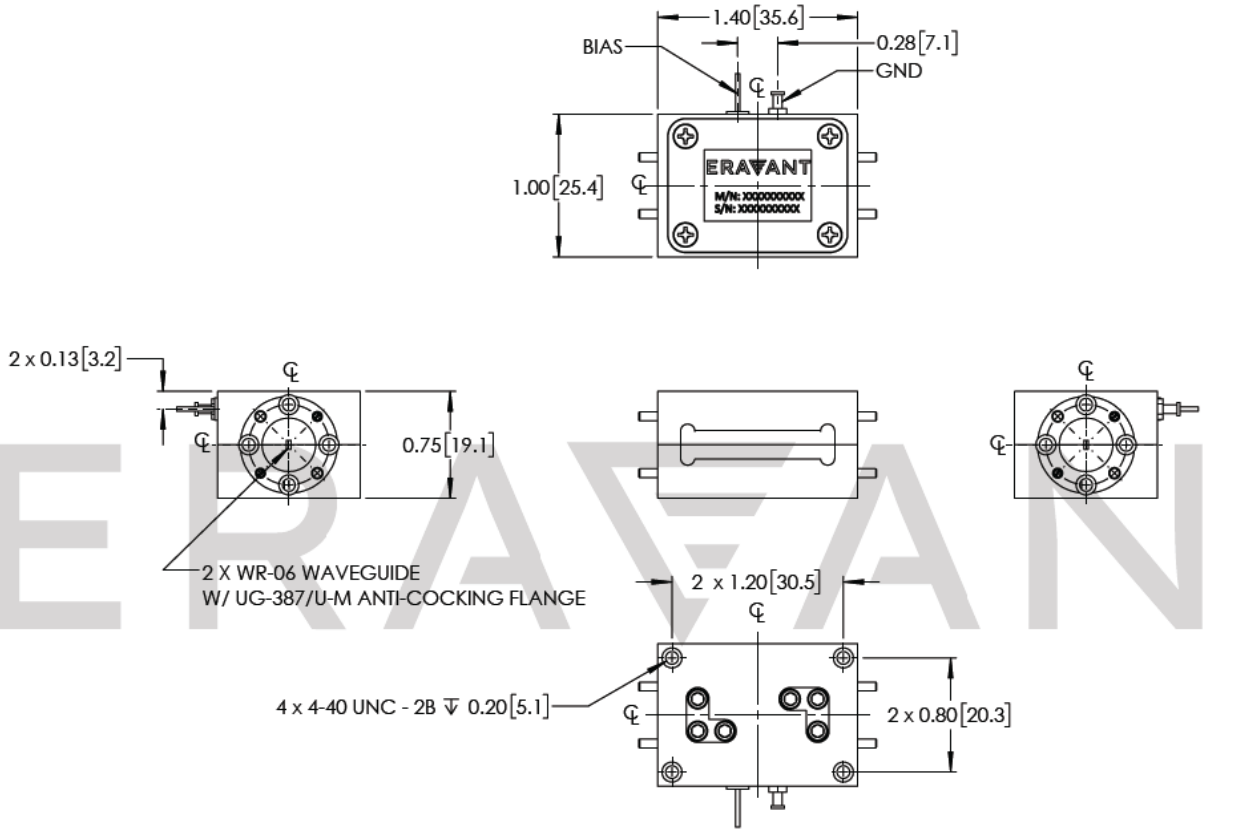
Output Power vs. Frequency

Bias: +12 V_{DC}/220 mA

RFSat: 310mA



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room 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.