SBP-2142341507-0404-E1

Rev 1.0

WR-04 Power Amplifier, 210 to 230 GHz, 15 dB Gain, 7 dBm P_{1dB}

Description:

Model SBP-2142341507-0404-E1 is a WR-04 power amplifier with a typical small signal gain of 15 dB and a nominal P_{1dB} of 7.0 dBm across the frequency range of 210 to 230 GHz. The DC power requirement for the amplifier is +8 V_{DC}/300 mA. The input and output port configuration offers an inline structure with WR-04 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- High Gain
- Low Power Consumption

Applications:

- Passive Imaging
- 6G Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	210 GHz		230 GHz
Gain		15 dB	
P_{1dB}		7.0 dBm	
P_{sat}		10 dBm	
P_{in}			12 dBm
Input Return Loss		8 dB	
Output Return Loss		5 dB	
DC Voltage		+8 V_{DC}	+12 V_{DC}
DC Supply Current		300 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input	WR-04 Waveguide with UG-387/U-M Anti-Cocking Flange
Output	WR-04 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-S04-2-A

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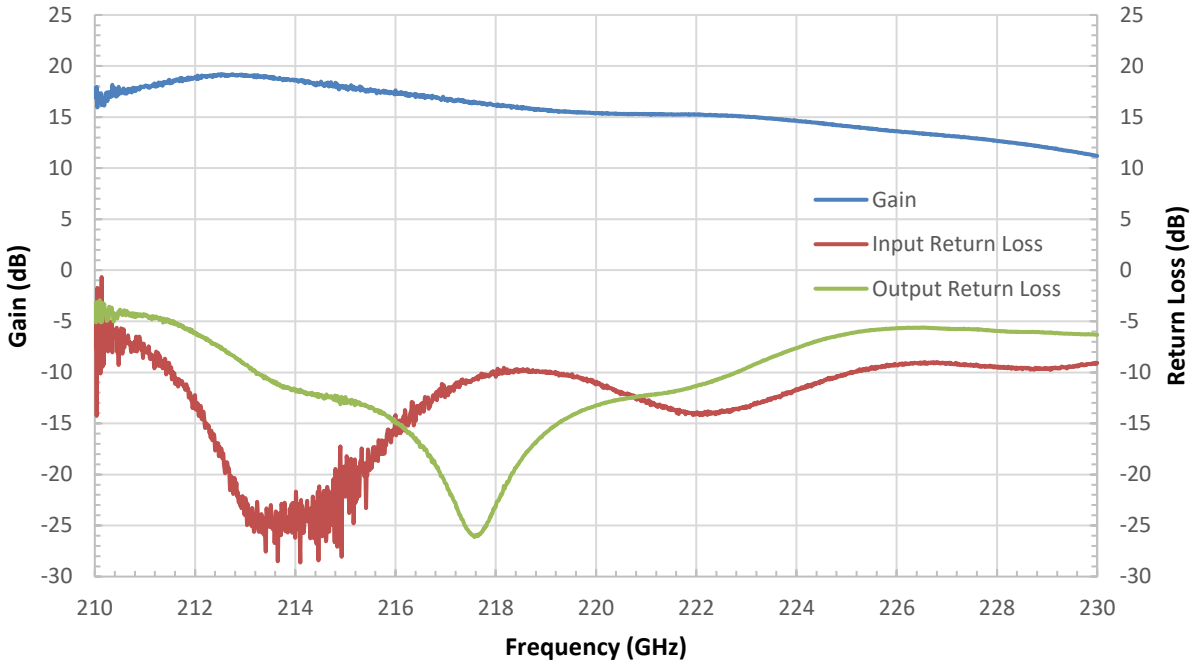
WR-04 Power Amplifier, 210 to 230 GHz, 15 dB Gain, 7 dBm P_{1dB}

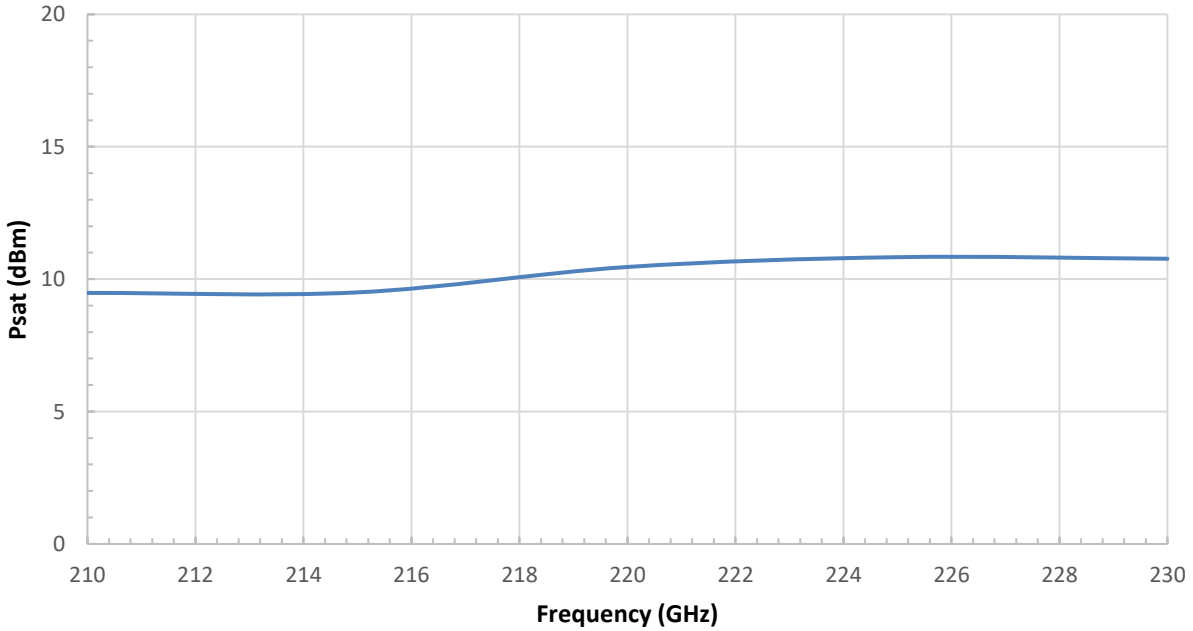
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/345 mA



Psat vs. Frequency

Bias: +8 V_{DC}/345 mA



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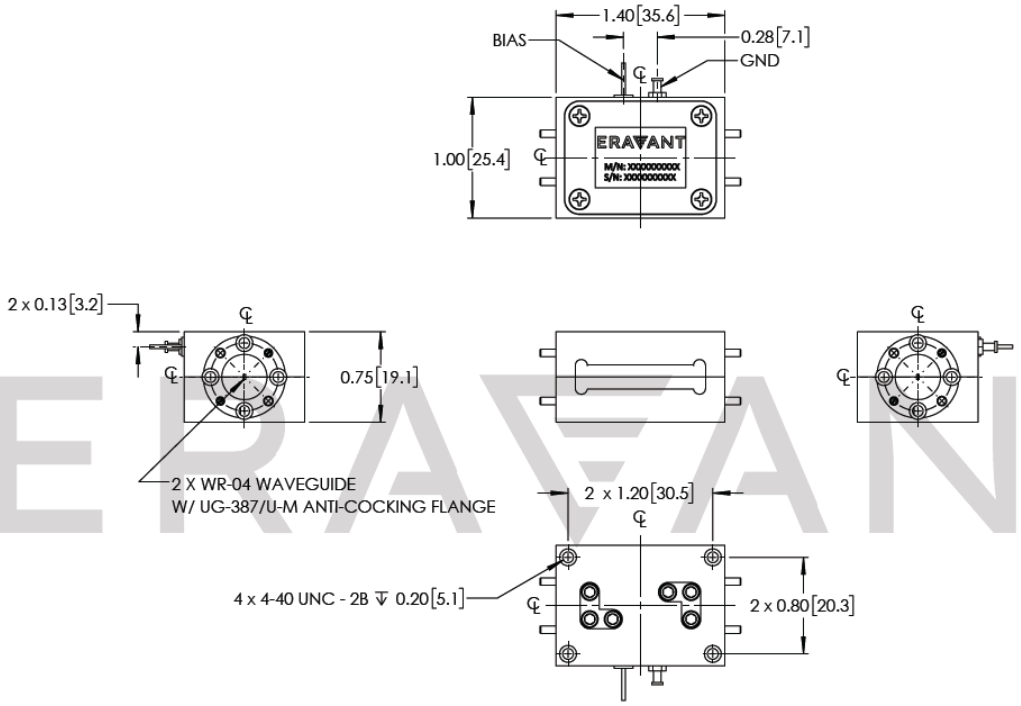
WR-04 Power Amplifier, 210 to 230 GHz, 15 dB Gain, 7 dBm P_{1dB}

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.

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