SBP-3333731512-2828-S1-K

Rev. 1.0

Ka-Band Power Amplifier, 33 to 37 GHz, 15 dB Gain, +12 dBm

Description:

Model SBP-3333731512-2828-S1-K is a power amplifier with a typical small signal gain of 15 dB and a nominal OP_{1dB} of +12 dBm in the frequency range of 33 to 37 GHz. The DC power requirement for the amplifier is +8 to +15 V_{DC}/110 mA. The input and output port configurations are both WR-28 waveguide with UG-600 A/U choke flanges.

Features:

- Good Gain Flatness
- Choke and Grooved Flange

Applications:

- Radar Systems
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	33 GHz		37 GHz
Gain	10 dB	15 dB	
Output P_{1dB}		+12 dBm	
P_{sat}	+15 dBm		
Noise Figure		6.0 dB	8.0 dB
P_{in}			+10 dBm
Input RL		10 dB	
Output RL		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		110 mA	150 mA
Specification Temperature		+25˚C	
Case Temperature	0˚C		+50˚C

Mechanical Specifications:

Item	Specification
Input	WR-28 Waveguide with UG-600 A/U Choke and Grooved Flange
Output	WR-28 Waveguide with UG-600 A/U Choke and Grooved Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
RF Port Separation	1.23”
Size	1.20” (W) X 1.98” (L) X 0.70” (H)
Outline	BG-SA-1-H

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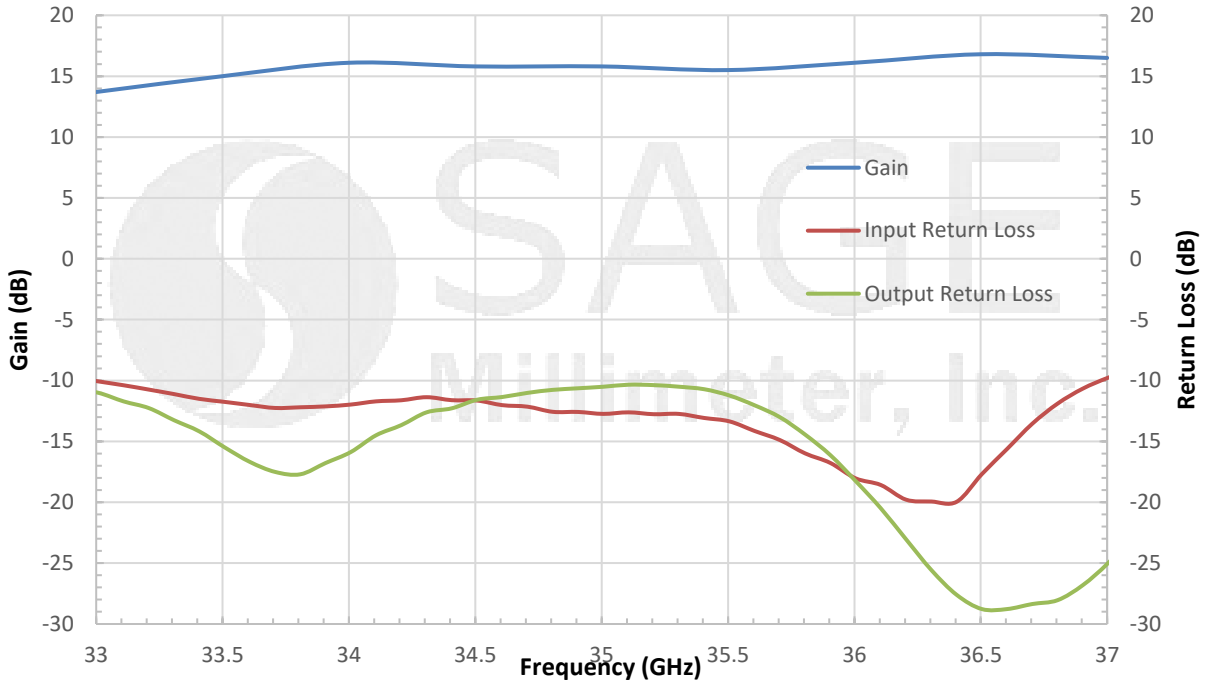
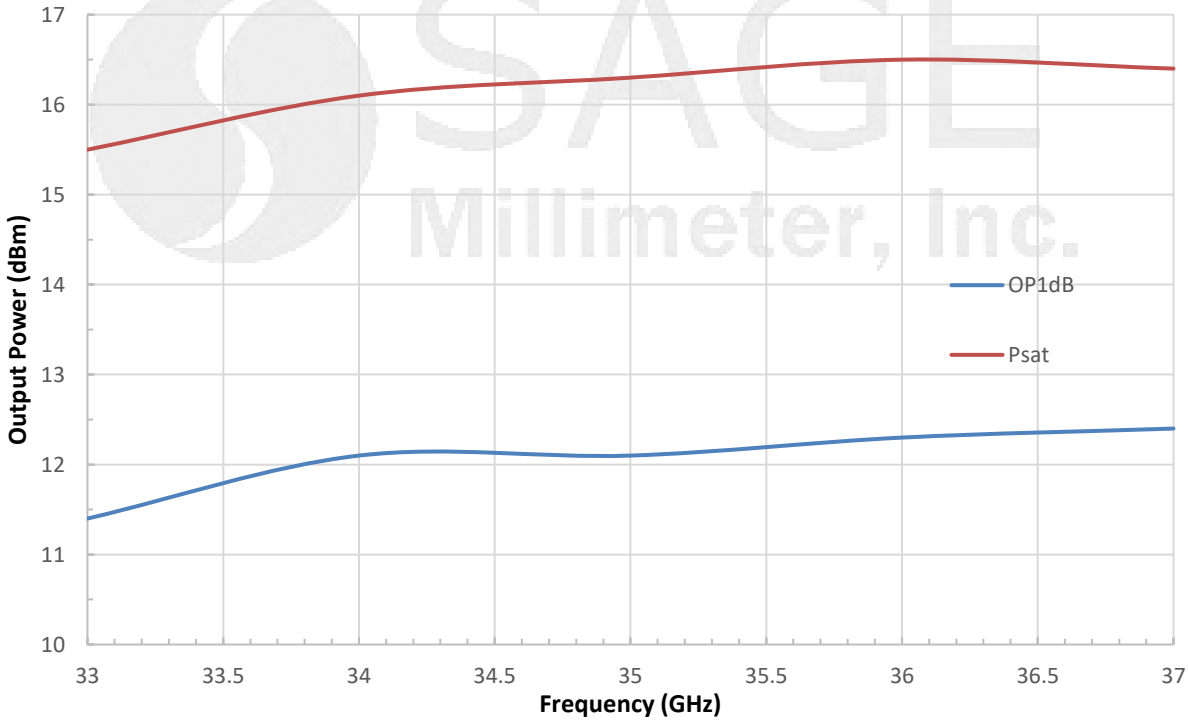
Gain and Return Loss

Bias: +8 V_{DC}/107 mA



Output Power

Bias: +8V_{DC}/107 mA



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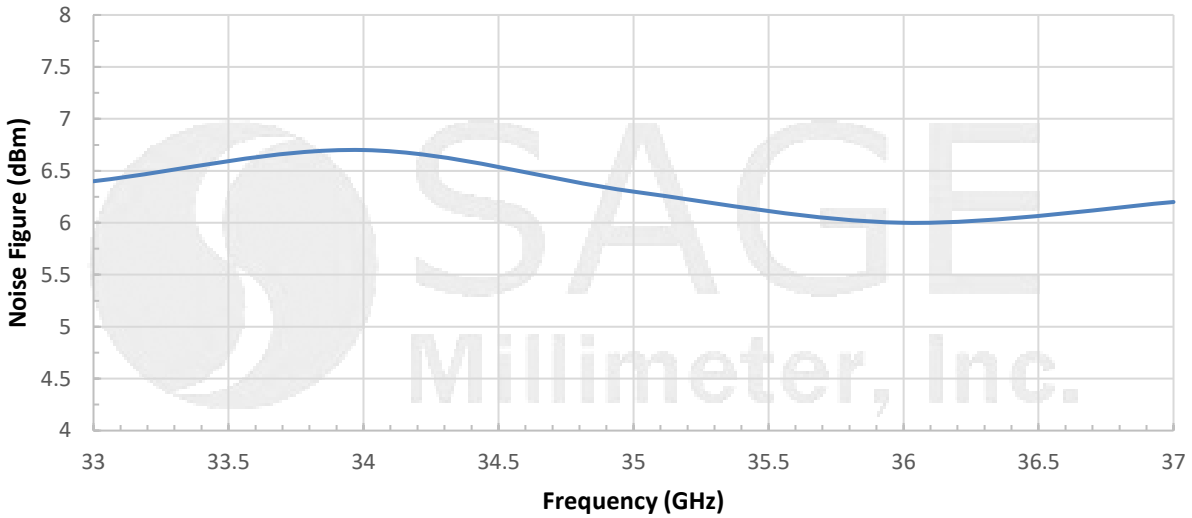
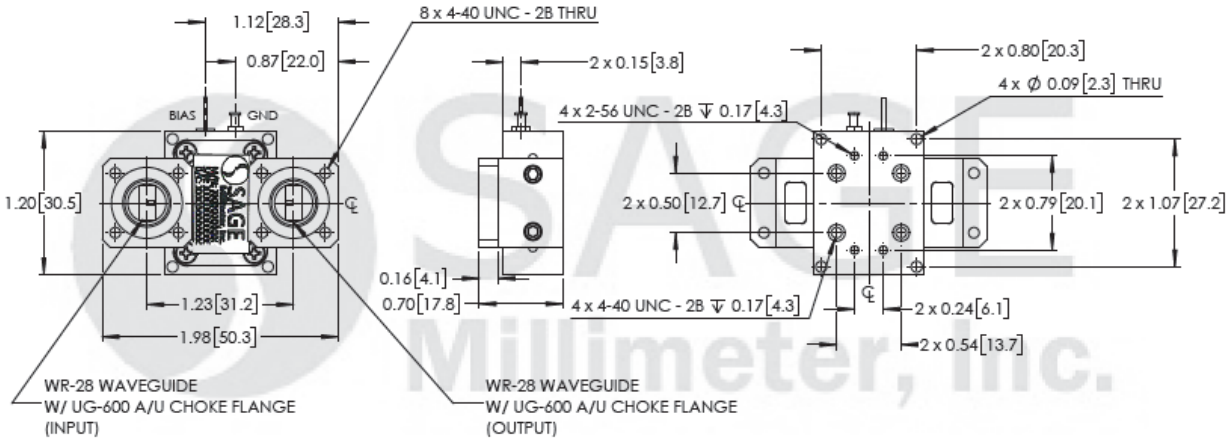
Noise Figure

Bias: +8V_{DC}/107 mA



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.
- SAGE Millimeter, Inc. 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.
- Do not place objects inside the waveguide aperture.