



## Ka-Band Power Amplifier, 26.5 to 41 GHz, 25 dB Gain, 30 dBm P<sub>1dB</sub>

### Description:

**Model SBP-2734132530-KFKF-E1-HR** is a power amplifier with a small signal gain of 25 dB, and a typical P<sub>1dB</sub> of +30 dBm across the frequency range of 26.5 to 41 GHz. The DC power requirement for the amplifier is +8 V<sub>DC</sub>/3000 mA. The input and output port configurations are both female 2.92 mm (K) connectors. Other port configurations, such as male 2.92 mm (K) connectors and WR-28 waveguides for either the input or output port, are also available under different model numbers.



### Features:

- High Output Power
- Medium Gain

### Applications:

- Radar Systems
- Communication Systems
- Test Equipment

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		41 GHz
Gain		25 dB	
P <sub>1dB</sub>		+30 dBm	
P <sub>sat</sub>		+33 dBm	
P <sub>in</sub>			+10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage		+8 V <sub>DC</sub>	+12 V <sub>DC</sub>
DC Supply Current		3000 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input Port	2.92 mm (F)
Output Port	2.92 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.07 lb
Size	3.15" (L) X 3.15" (W) X 3.48" (H)
Outline	BK-SC-C1-H

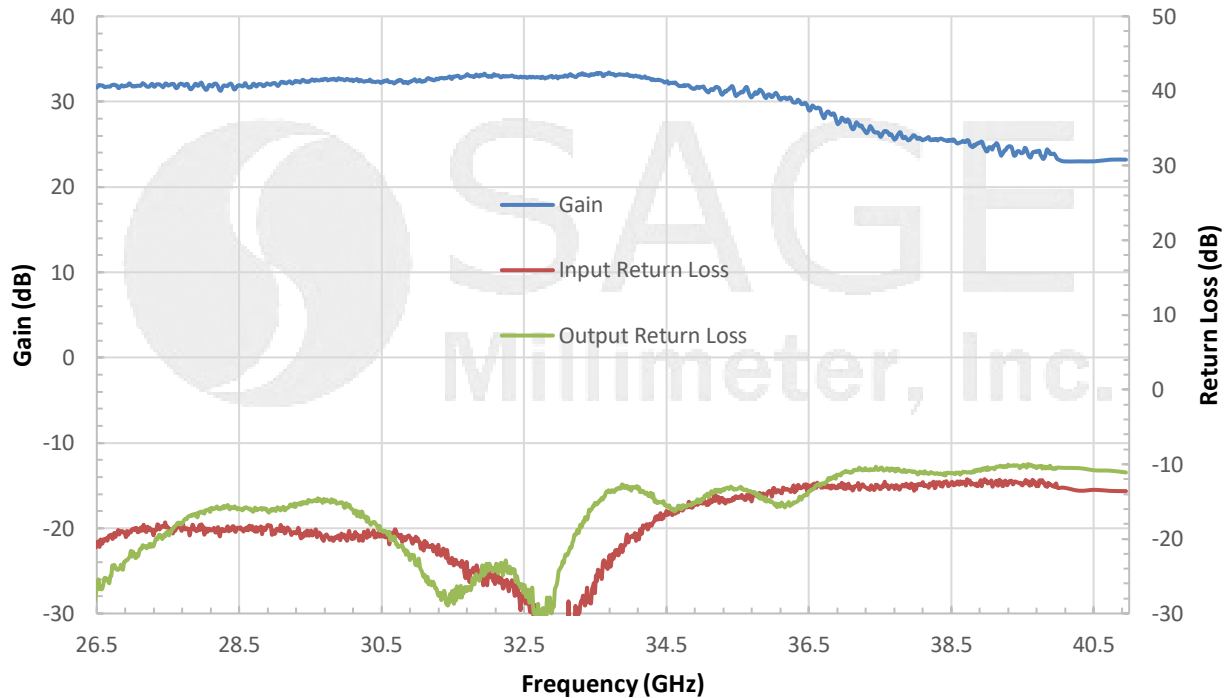




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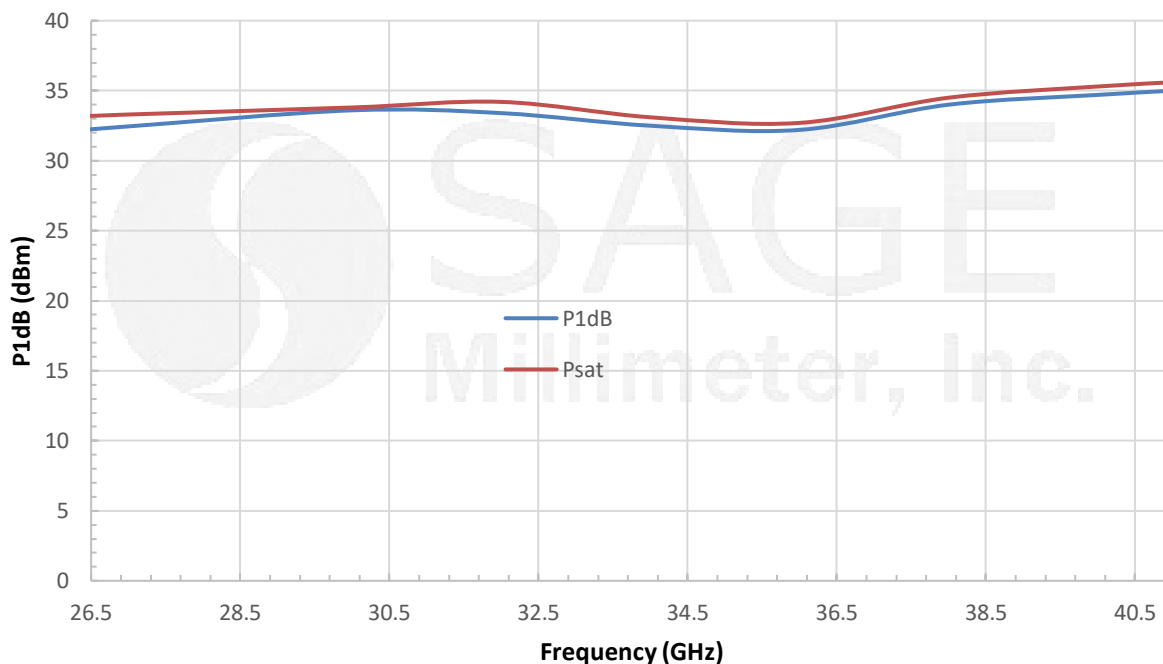
### Typical Gain and Return Loss vs. Frequency

Bias: +8 V<sub>DC</sub>/2.4A



### Typical P<sub>1dB</sub> and Psat vs. Frequency

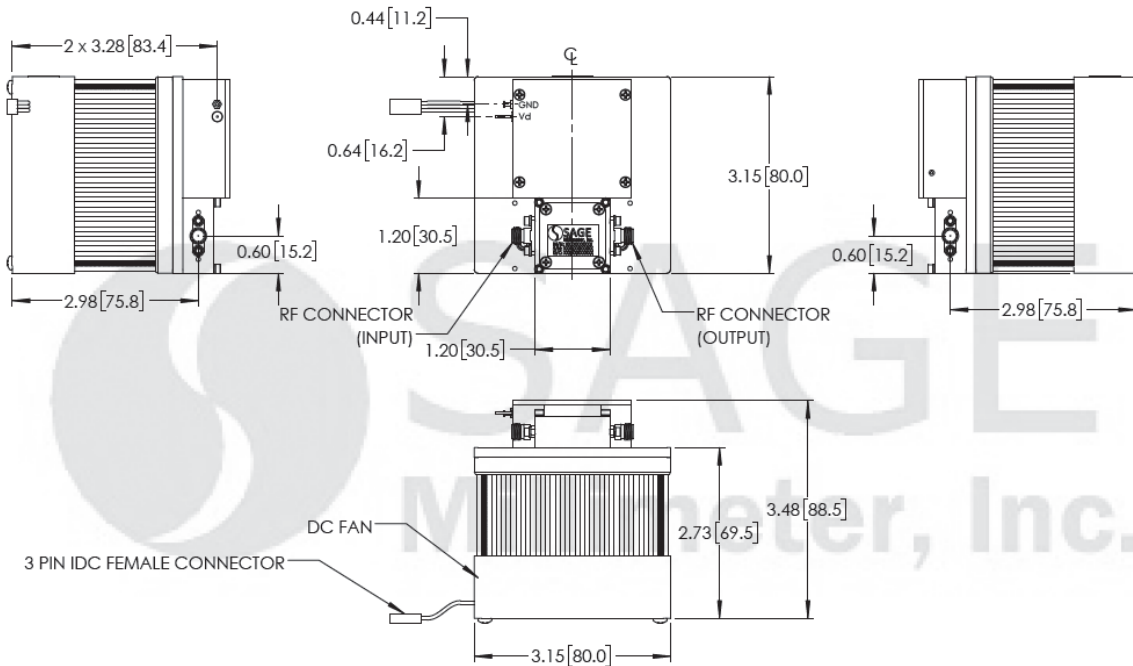
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**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

### 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.

