



## 26.5 to 40 GHz Power Amplifier, 35 dB Gain, +30 dBm P<sub>1dB</sub>

### Description:

**Model SBP-2734033530-KFKF-S1-HR** is a power amplifier with a typical small signal gain of 35 dB and a nominal P<sub>1dB</sub> of +30 dBm across the frequency range of 26.5 to 40 GHz. The DC power requirement for the amplifier is +8 V<sub>DC</sub>/4.0 A. The RF connectors are female K connectors. Other port configurations, such as K connectors and WR-28 waveguides for either the input or output port, are also available under different model numbers.



### Features:

- Broadband Performance
- High Output Power
- Good Power and Gain Flatness

### Applications:

- 5G System
- Radar Systems
- Communication Systems
- Test Equipment

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40 GHz
Gain		35 dB	
P <sub>1dB</sub>		+30 dBm	
P <sub>sat</sub>		+32 dBm	
P <sub>in</sub>			+20 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 (Under RF Drive)		4.0 A	
Supply Voltage to Fan		+12 V <sub>DC</sub>	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

### Mechanical Specifications:

Item	Specification
Input	K(F)
Output	K(F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	17 Oz
Size	3.15" (L) X 3.15" (W) X 3.48" (H)
Outline	BK-SC-C1-H

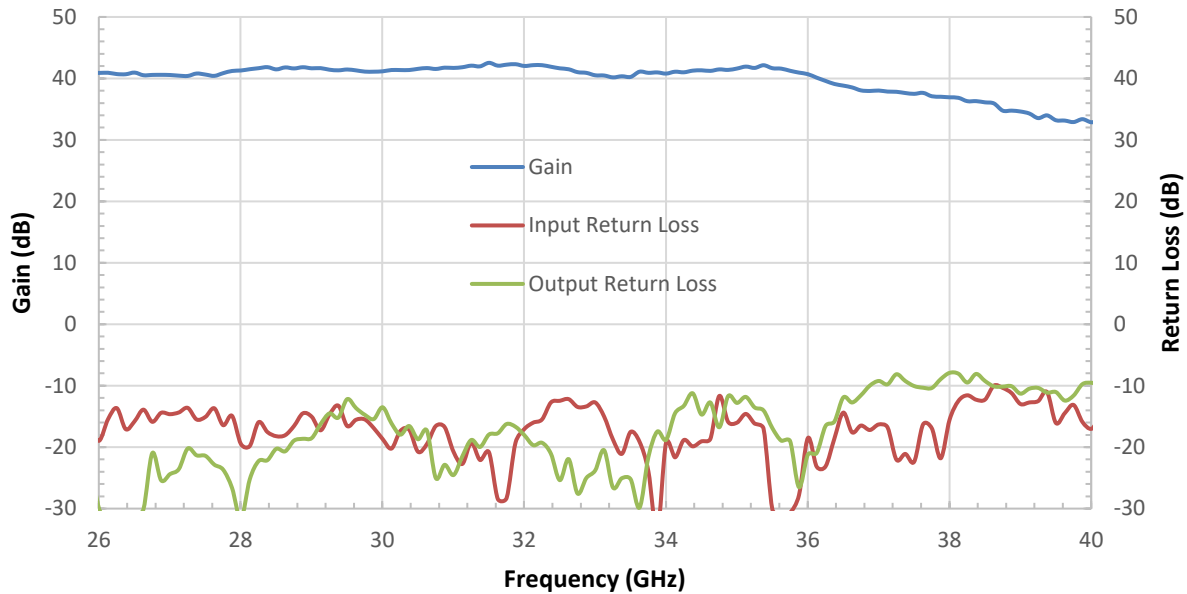




## 26.5 to 40 GHz Power Amplifier, 35 dB Gain, +30 dBm P<sub>1dB</sub>

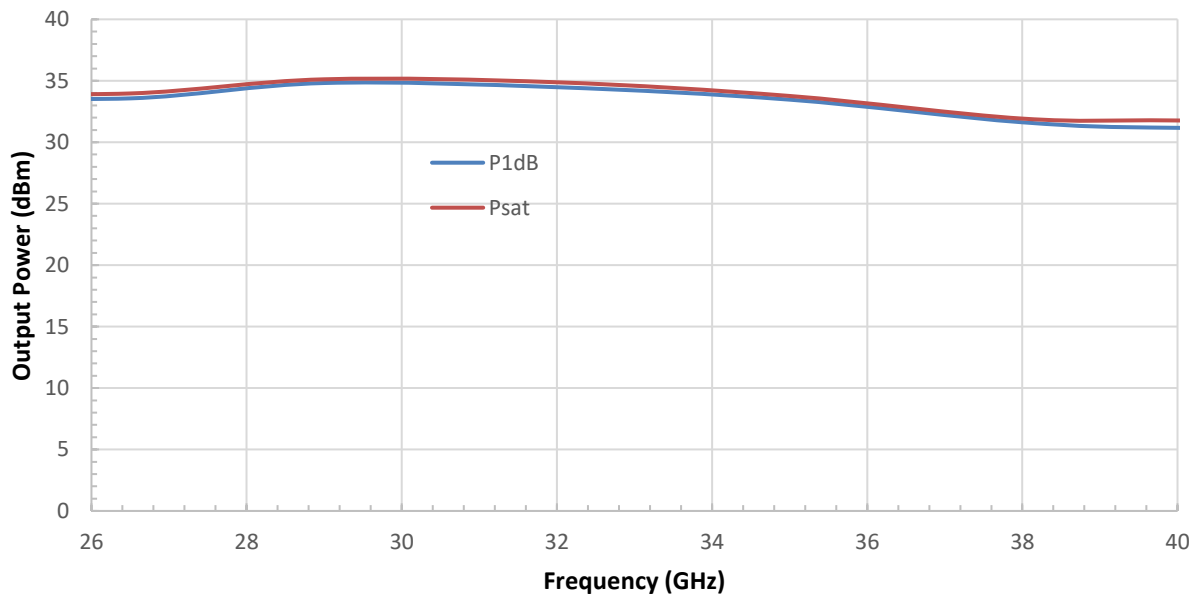
### Gain and Return Loss vs. Frequency

Bias: +8 V<sub>DC</sub>/2.8 A



### Output Power vs. Frequency

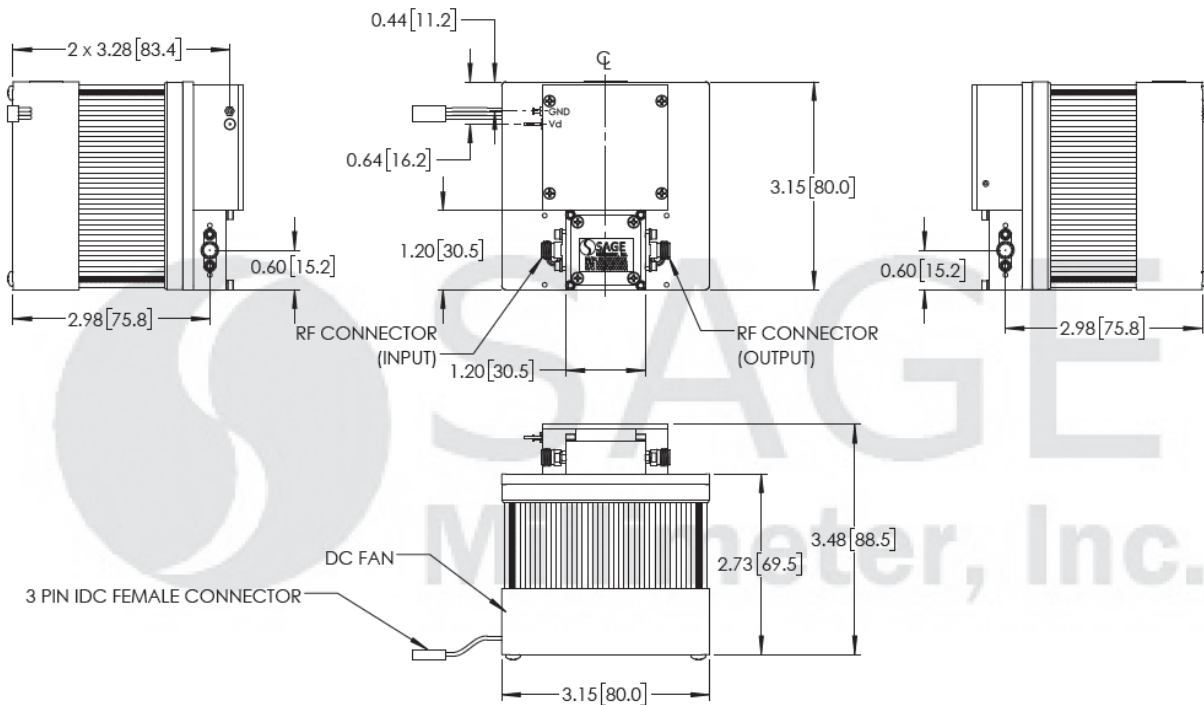
Bias: +8 V<sub>DC</sub>/4.5 A





## 26.5 to 40 GHz Power Amplifier, 35 dB Gain, +30 dBm P<sub>1dB</sub>

**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.
- 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.
- 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.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

