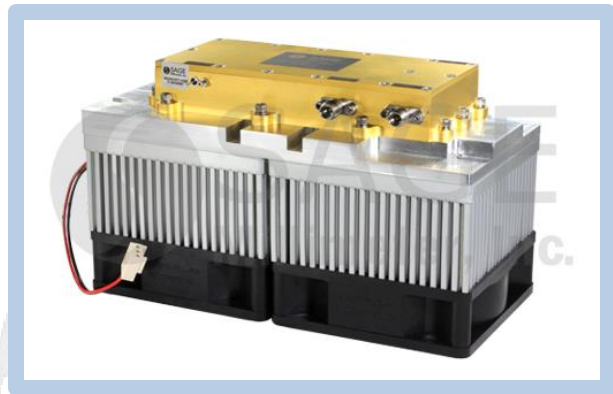




## 32 to 38 GHz Power Amplifier, 18 dB Gain, +38 dBm P<sub>sat</sub>

### Description:

**Model SBP-3233831838-KFKF-E1-HR** is a power amplifier with a typical small signal gain of 18 dB and a nominal P<sub>sat</sub> of +38 dBm across the frequency range of 32 to 38 GHz. The DC power requirement for the amplifier is +30 V<sub>DC</sub>/2 A. The mechanical configuration is an inline structure with K(F) connector as its input port and output port. Other port configurations, such as K connectors and WR-28 waveguides for either the input or output, are also available under different model numbers.



### Features:

- Pulsed Capability
- High Output Power
- Good Output Power Flatness

### Applications:

- 5G Systems
- Radar Systems
- Communication Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	32 GHz		38 GHz
Gain		18 dB	
P <sub>sat</sub>		+38 dBm	
P <sub>in</sub>			+30 dBm
Input Return Loss		15 dB	
Output Return Loss		10 dB	
DC Voltage		+30 V <sub>DC</sub>	+48 V <sub>DC</sub>
DC Supply Current		2 A	
Supply Voltage to Fan		+12 V <sub>DC</sub>	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

### Mechanical Specifications:

Parameter	Connector
Input	2.92 mm (K) Female
Output	2.92 mm (K) Female
Pulsed Input (TTL)	SMA (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.07 lb
Size	3.15" (W) X 6.35" (L) X 3.70" (H)
Outline	BP-SC-2-BR-H190

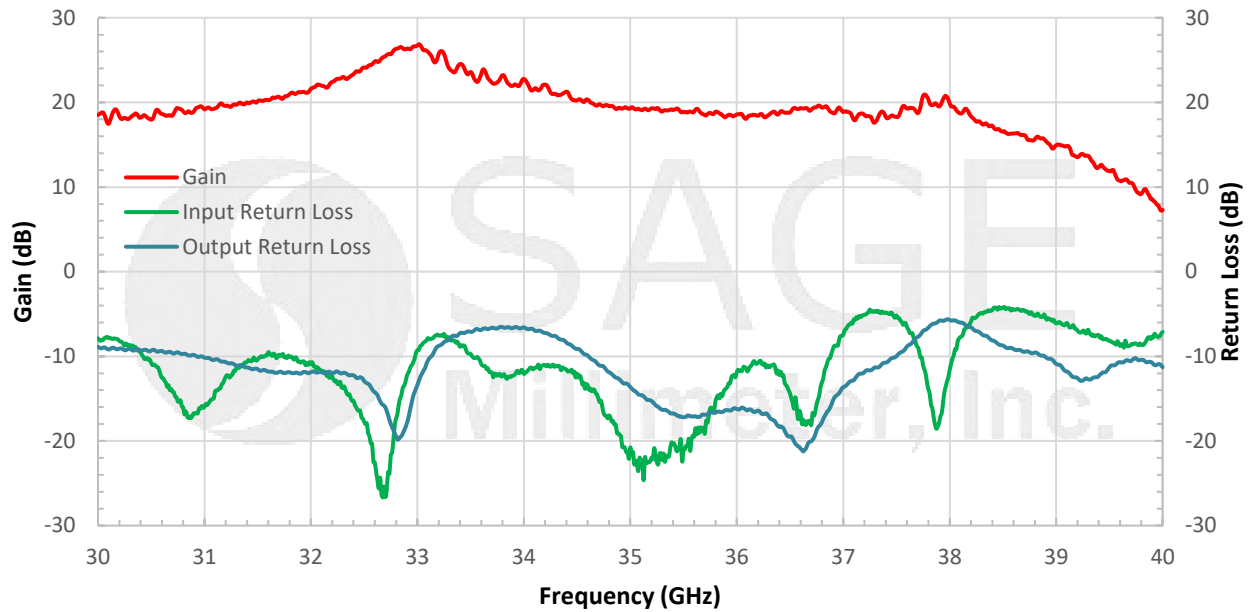




## 32 to 38 GHz Power Amplifier, 18 dB Gain, +38 dBm P<sub>sat</sub>

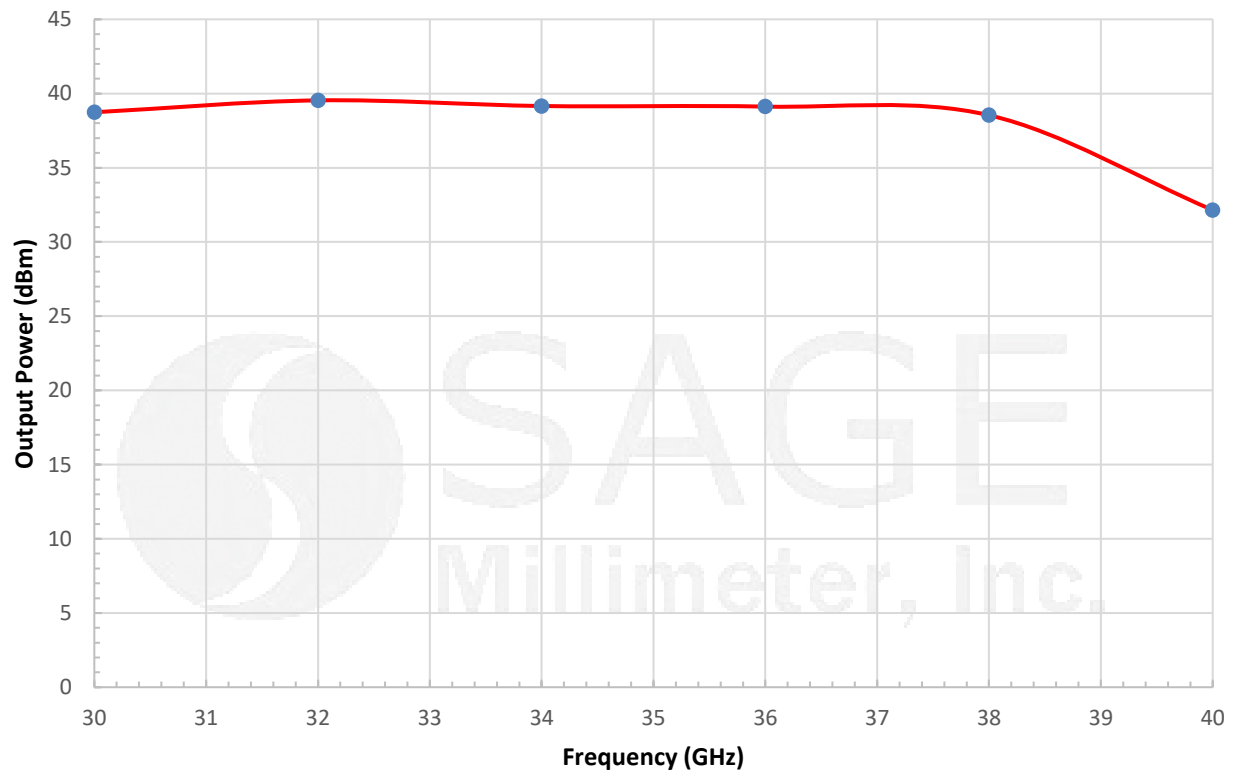
### Typical Gain and Return Loss vs. Frequency

Bias = +48 V<sub>DC</sub> / 560 mA



### Typical Output Power Psat Vs. Frequency

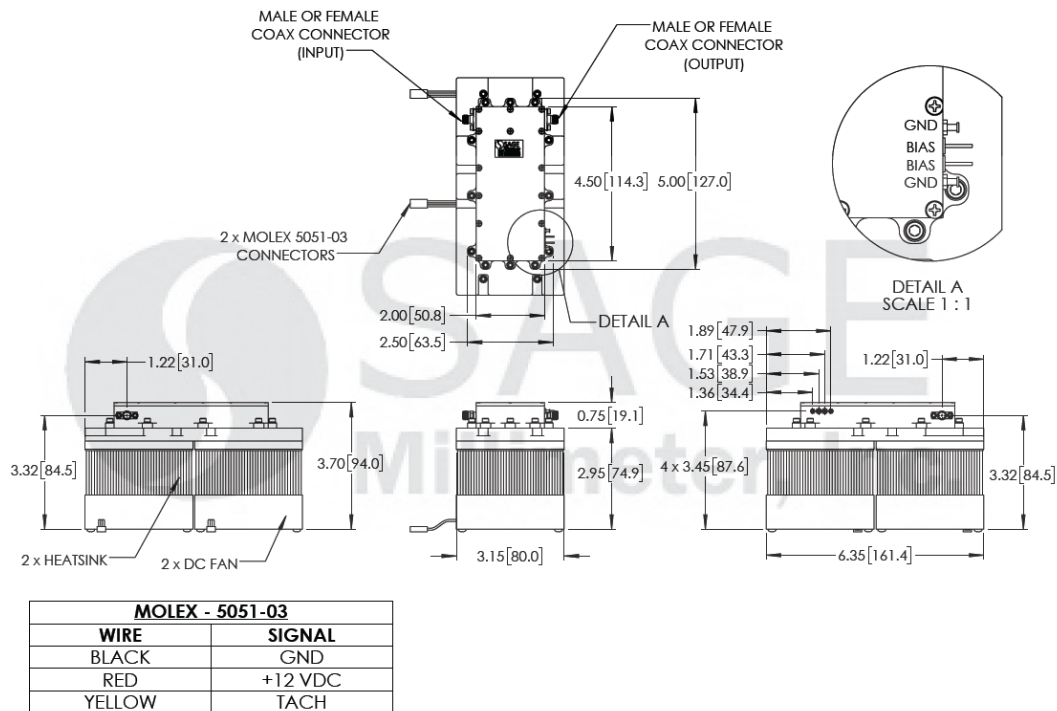
Bias = +48 V<sub>DC</sub> / 2 A





## 32 to 38 GHz Power Amplifier, 18 dB Gain, +38 dBm P<sub>sat</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.
- 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.**

