

# E-Band Power Amplifier, 60 to 90 GHz, 25 dB Gain, +16 dBm P<sub>1db</sub>

## **Description:**

**Model SBP-6039032516-1F1F-E1** is an ultra broad band power amplifier with a typical small signal gain of 25 dB and  $P_{1dB}$  of +16 dBm in the frequency range of 60 to 90 GHz. The saturated output power of the amplifier is +20 dBm. The DC power requirement for the amplifier is +8  $V_{DC}/600$  mA. The mechanical configuration offers an inline structure with 1mm female connectors. Other port configurations are available under different model numbers.



### **Features:**

• Full Waveguide Band Coverage Moderate Output Power

# Applications:

- Radar Systems
- Communication Systems
- Test Equipment

## **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency Range	60 GHz		90 GHz
Gain		25 dB	
$P_{1dB}$		+16 dBm	
P <sub>sat</sub>		+20 dBm	
P <sub>in</sub>			+10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+15 V <sub>DC</sub>
DC Supply Current		600 mA	
Specification Temperature	A A	+25 °C	
Operating Temperature	0 °C		+50 °C

# **Mechanical Specifications:**

Item	Specification	
Input/Output Port	1 mm (F)	
Bias	Solder Pin	
Case Material	Aluminum	
Finish	Gold Plated	
Weight	1.3 Oz	
Size	1.20" (W) X 1.20" (L) X 0.48" (H)	
Outline	BG-SC-2	



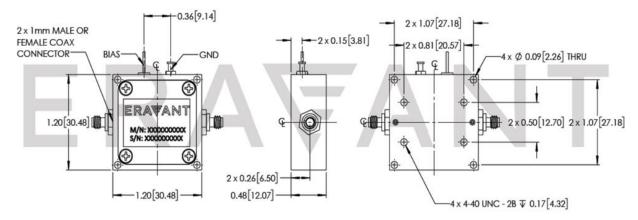
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www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com



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



#### Note:

- 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.
- Proper torque,  $4.0 \pm 0.15$  inch-pounds (0.45  $\pm$  0.02 Nm), should be applied. **SAGE Millimeter** torque wrench, model SCH-06004-S1, is highly recommended.





