

## Broadband Amplifier, 0.1 to 26.5 GHz, 20 dB Gain, 18 dBm P<sub>1dB</sub>, 5 dB NF

### Description:

**Model SBB-0122732018-KFKF-E3** is a broadband amplifier with a typical small signal gain of 20 dB, a nominal P<sub>1dB</sub> of +18 dBm, and a typical noise figure of 5 dB across the frequency range of 0.1 to 26.5 GHz. The DC power requirement for the amplifier is +12 V<sub>DC</sub>/300 mA. RF connectors are female K connectors. The heatsink is recommended for better heat management. Other port configurations are available under different model numbers.



### Features:

- High Output Power
- Good Gain Flatness

### Applications:

- Radar Systems
- Communication Systems
- Test Equipment

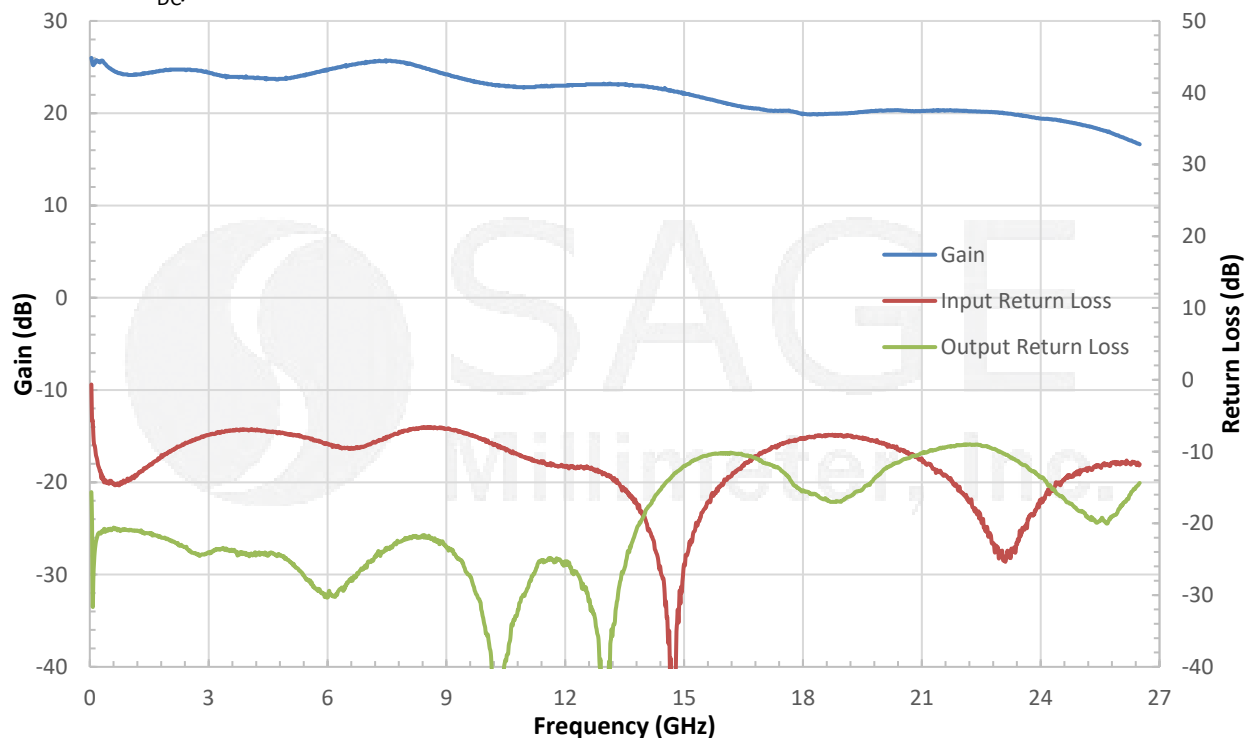
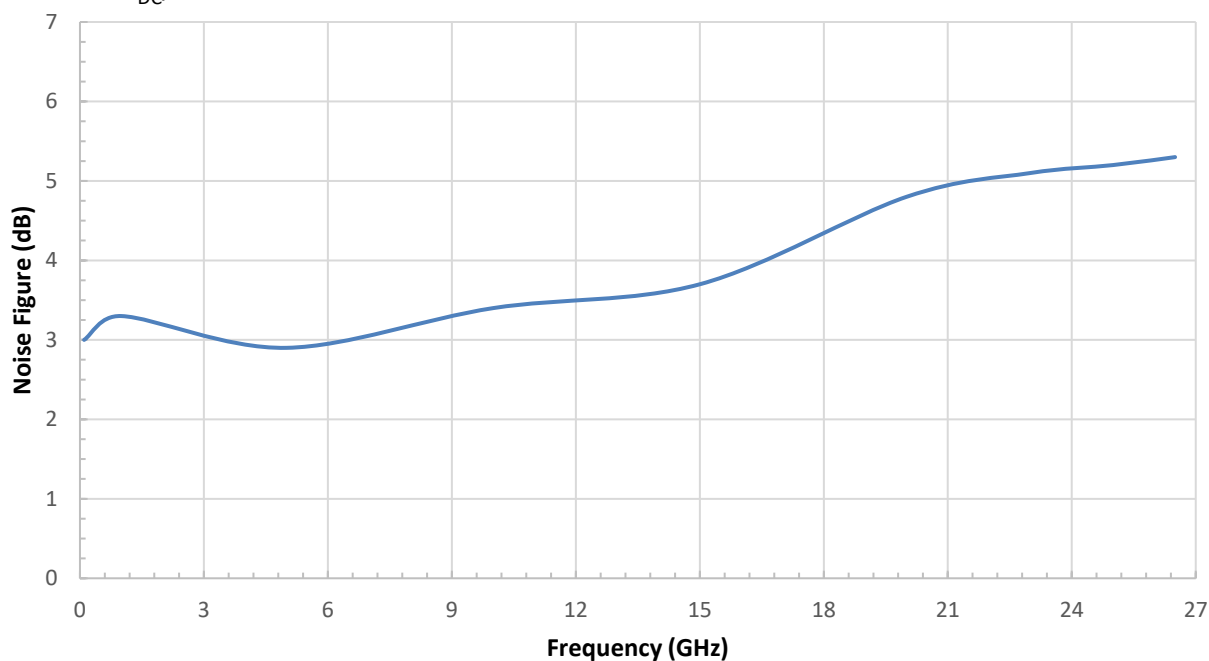
### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.1 GHz		26.5 GHz
Gain		20 dB	
P <sub>1dB</sub>		+18 dBm	
P <sub>sat</sub>		+21 dBm	
Noise Figure		5 dB	
P <sub>in</sub>			+5 dBm
Input Return Loss		8 dB	
Output Return Loss		8 dB	
DC Voltage	+6 V <sub>DC</sub>	+12 V <sub>DC</sub>	+15 V <sub>DC</sub>
DC Supply Current		300 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

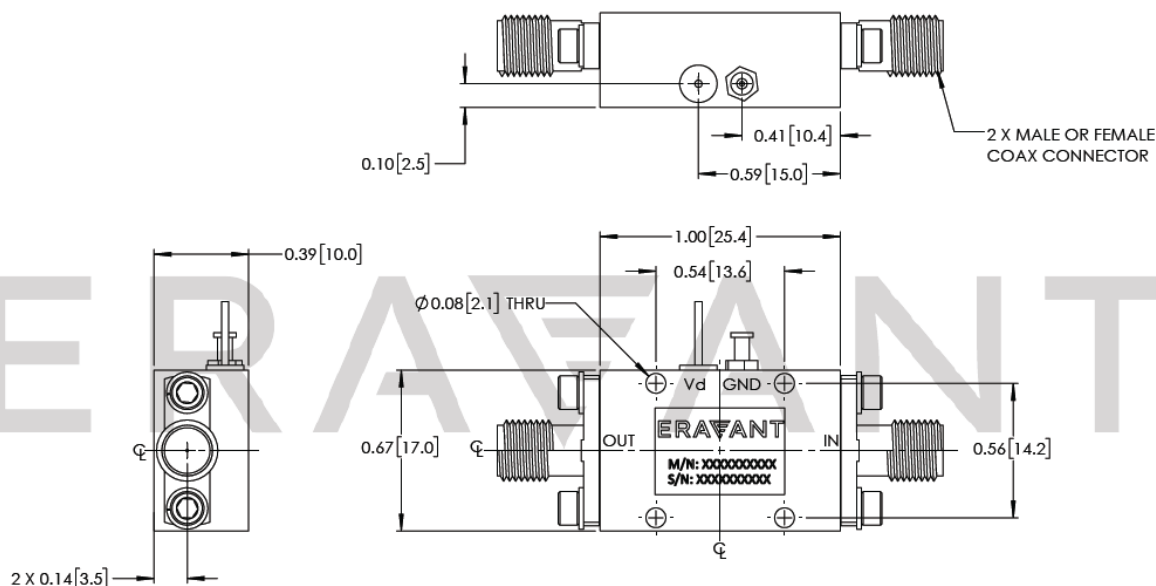
Item	Specification
Input Port	K (F)
Output Port	K (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.8 Oz
Size	1.00" (L) x 0.67" (W) x 0.39" (H)
Outline	BB-ZC-3



**Broadband Amplifier, 0.1 to 26.5 GHz, 20 dB Gain, 18 dBm P<sub>1dB</sub>, 5 dB NF****Gain and Return Loss vs. Frequency**Bias: +12 V<sub>DC</sub>/310 mA**Noise Figure vs. Frequency**Bias: +12 V<sub>DC</sub>/310 mA

## Broadband Amplifier, 0.1 to 26.5 GHz, 20 dB Gain, 18 dBm $P_{1dB}$ , 5 dB NF

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