

F-Band Power Amplifier, 100 to 115 GHz, 20 dB Gain, 15 dBm P_{1dB}**Description:**

Model SBP-1041242015-0808-E1 is a F-band power amplifier with a typical small signal gain of 20 dB and a nominal P_{1dB} of 15 dBm across the frequency range of 100 to 115 GHz. The DC power requirement for the amplifier is +8 V_{DC}/500 mA. The input and output port configuration offers an inline structure with WR-08 waveguides and UG-387/U-M anti-cocking flanges. Other port configurations are available under different model numbers.

**Features:**

- Moderate Output Power
- Low Power Consumption

Applications:

- Communication Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	100 GHz		115 GHz
Gain		20 dB	
P _{1dB}		+15 dBm	
P _{sat}		+16 dBm	
P _{in}			+15 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage		+8 V _{DC}	+12 V _{DC}
DC Supply Current		500 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

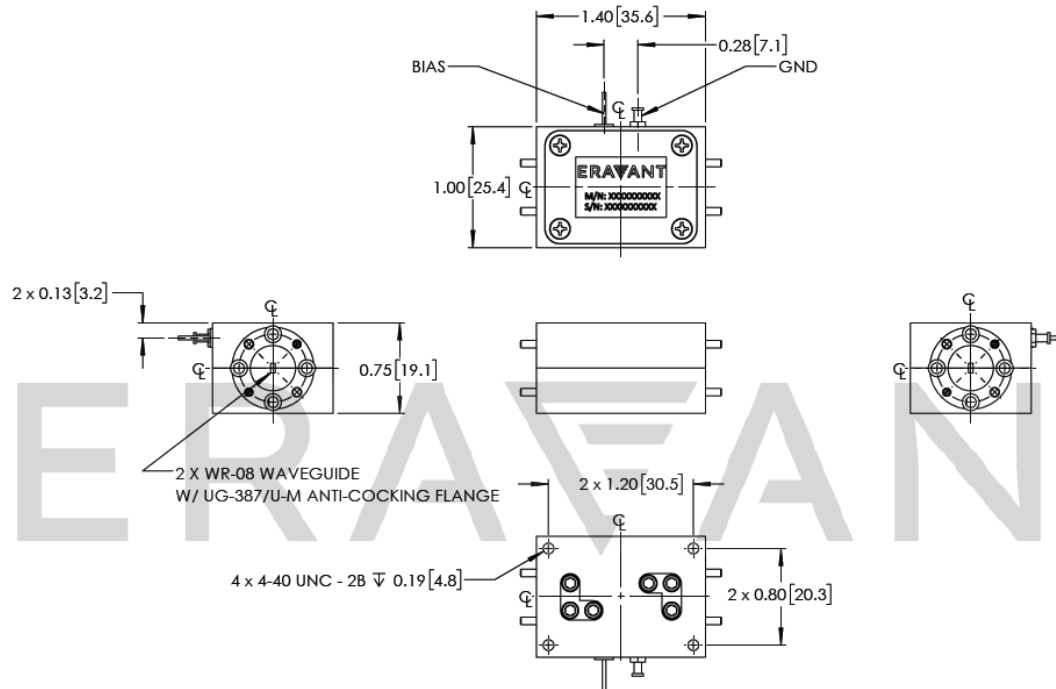
Mechanical Specifications:

Item	Specification
Input	WR-08 Waveguide with UG-387/U-M Anti-Cocking Flange
Output	WR-08 Waveguide with UG-387/U-M Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
Size	1.40" (L) X 1.00" (W) X 0.75" (H)
Outline	BG-SF-2-A



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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.

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.

