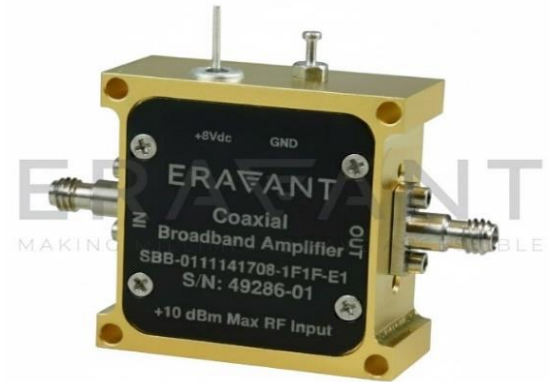


## SBB-0111141708-1F1F-E1

### Broadband Amplifier, 0.01 to 110 GHz, 17 dB Gain, +8 dBm P<sub>1dB</sub>

**SBB-0111141708-1F1F-E1** is a broadband amplifier with a typical small signal gain of 17 dB, a nominal P<sub>1dB</sub> of +8 dBm. The DC power requirement for the amplifier is +8 V<sub>DC</sub>/120 mA. The use of a heat sink is advised to assist in cooling the device. Noise figure data can be measured on request. The RF connectors are female 1 mm connectors. Other port configurations are available under different model numbers.



### Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		0.01 GHz		110 GHz
Gain	0.01-70 GHz		17 dB	
	70-90 GHz		16 dB	
	90-110 GHz		10 dB	
Output P <sub>1dB</sub>	0.01-70 GHz		+8 dBm	
	70-90 GHz		+4 dBm	
	90-110 GHz		+0 dBm	
Output P <sub>sat</sub>	0.01-70 GHz		+10 dBm	
	70-90 GHz		+8 dBm	
	90-110 GHz		+4 dBm	
Input Power				+10 dBm
Input Return Loss			8 dB	
Output Return Loss			8 dB	
DC Voltage		+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+15 V <sub>DC</sub>
DC Supply Current			120 mA	
Specification Temperature			+25 °C	
Operating Temperature		0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input Port	1 mm (F)
Output Port	1 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.8 Oz
Outline	BU-SC-06-2

### ECCN

3A001.b.4

### FEATURES

- Broadband Operation

### APPLICATIONS

- Microwave Photonics
- Analog RF-over-fiber Systems
- High-speed test and measurement
- Research and laboratory Platforms
- mmWave and sub-THz Signal distribution
- Optical-electrical Co-packaged experiments
- Advanced AI and Accelerator Interconnect Research

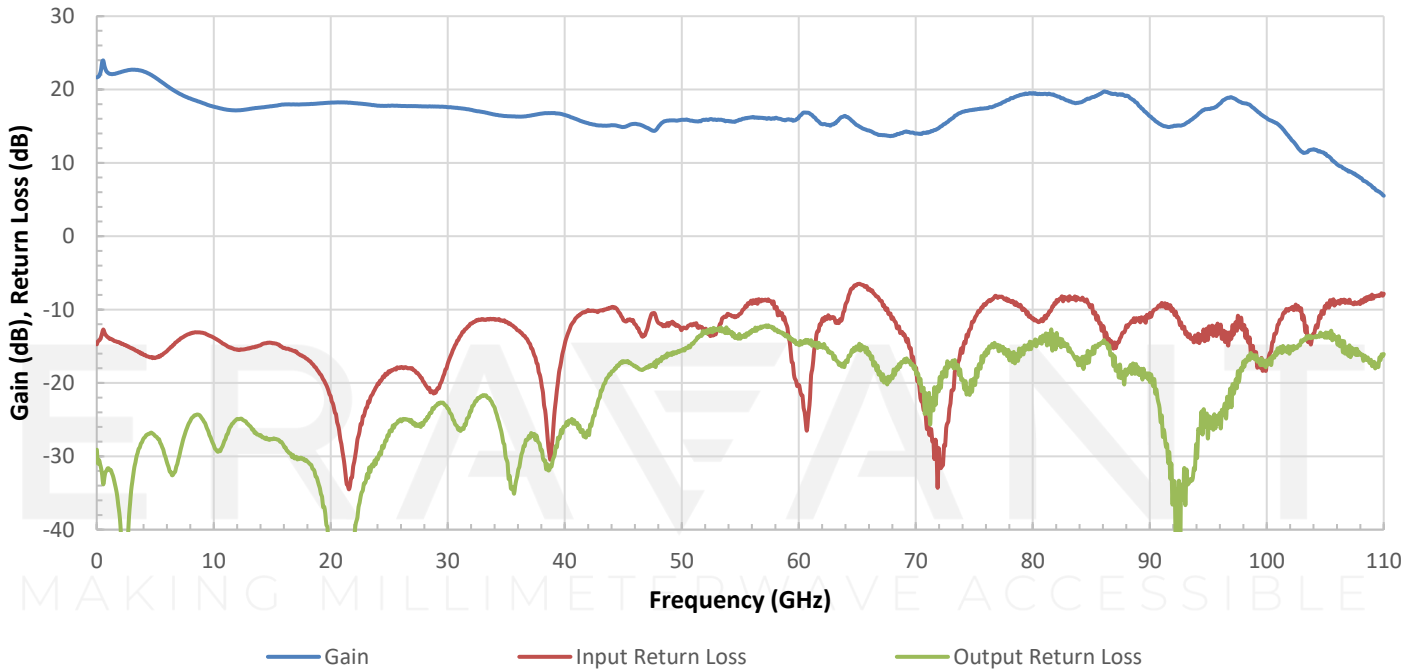
### SUPPLEMENTAL DETAILS



SBB-0111141708-1F1F-E1

## Gain and Return Loss vs. Frequency

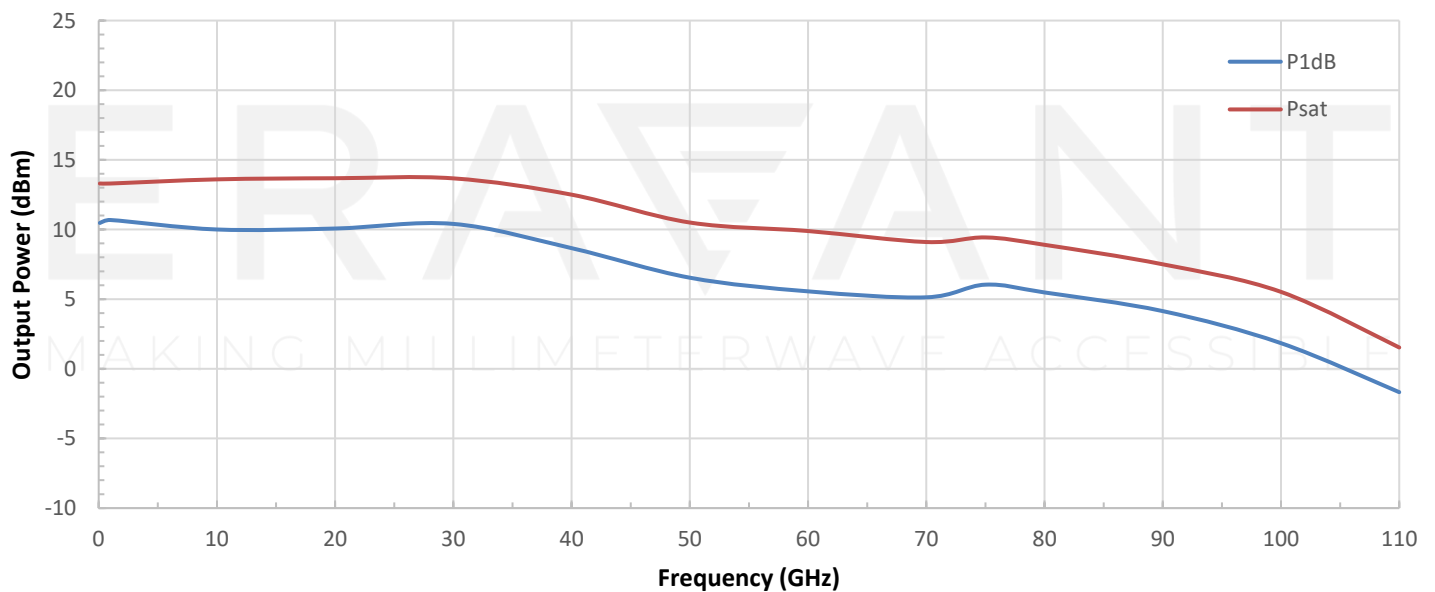
Bias: +8 V<sub>DC</sub>/ 112 mA



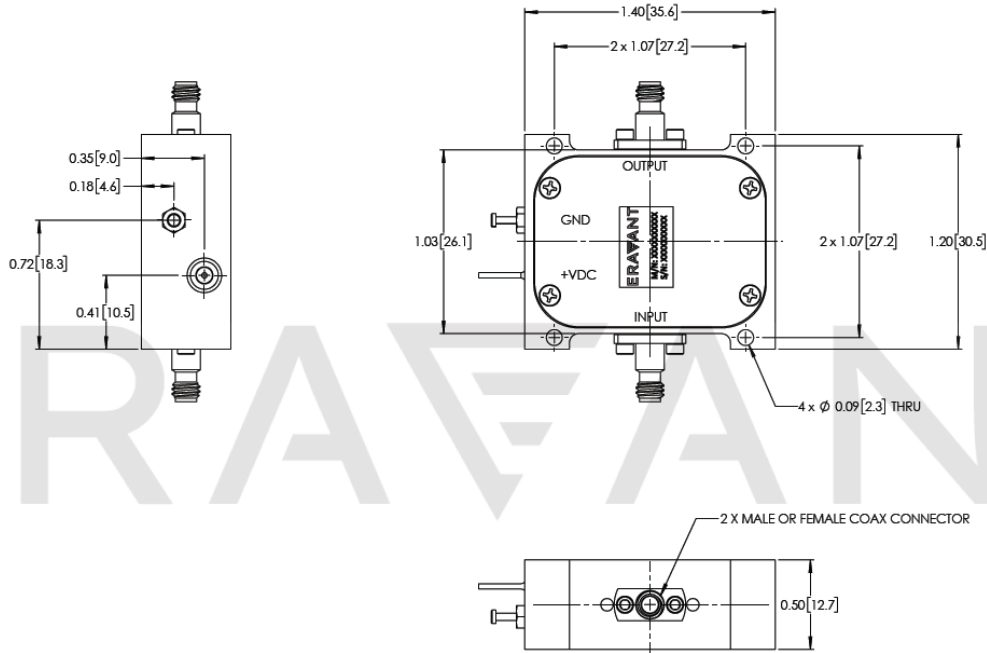
## Output Power vs. Frequency

Bias (P1dB): +8 V<sub>DC</sub>/ 112 mA

RFsat: +8 V<sub>DC</sub>/ 130 mA



**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.
- Eravant 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 should be applied:  $4.0 \pm 0.15$  inch-pounds ( $0.45 \pm 0.02$  Nm). Torque wrench model SCH-06004-S1 is highly recommended.

MAKING MILLIMETERWAVE ACCESSIBLE