

Broadband Amplifier, 10 MHz to 70 GHz, 30 dB Gain, +15 dBm P_{1dB}**Description:**

Model STB-0117033015-VFVF-S1 is a broadband benchtop driver amplifier with a typical small signal gain of 30 dB and a nominal P_{1dB} of +15 dBm across the frequency range of 10 MHz to 70 GHz. The power supply required is a single phase AC voltage in the range of 100 to 240 V_{AC}, which can be supplied by a wall outlet. The LED light helps to indicate the working status of the amplifier. The input and output port configurations are both female 1.85 mm connectors.

**Features:**

- Ultra-Broadband Coverage
- Good Gain Flatness

Applications:

- Bench Top Power Amplification
- Antenna Range
- Power Boosting

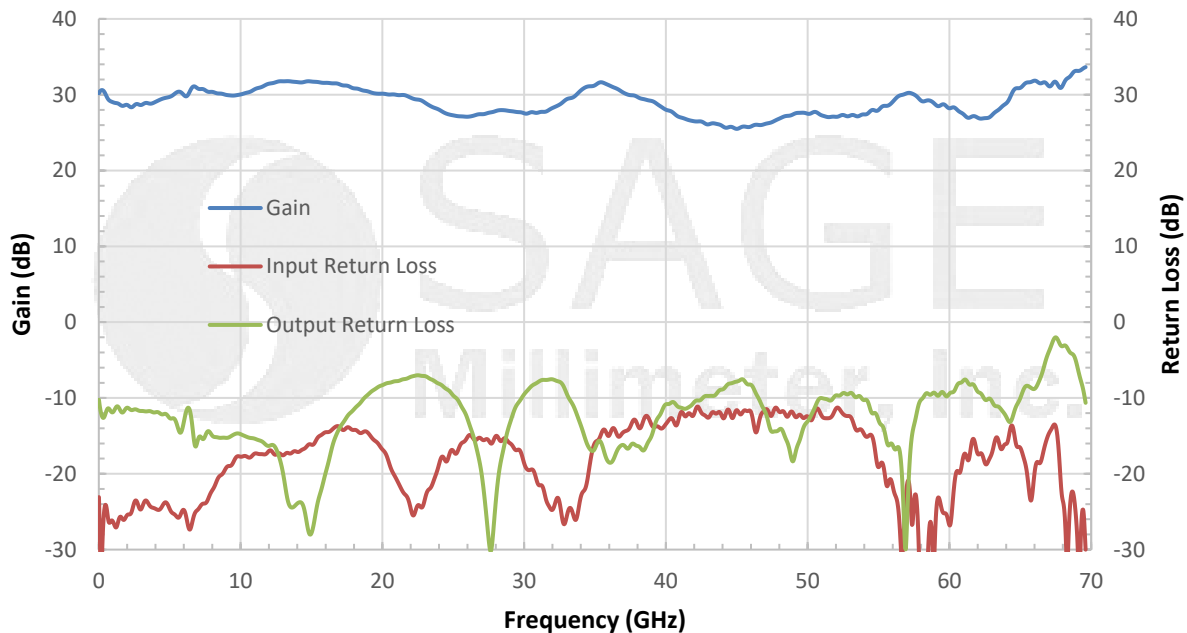
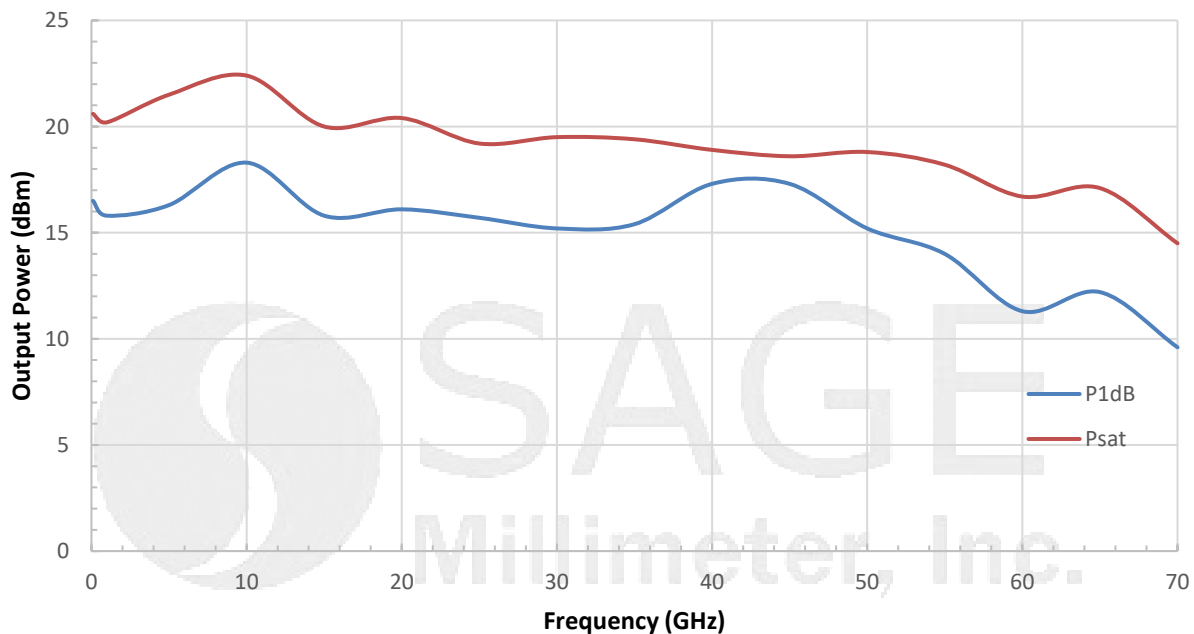
Electrical Specifications:

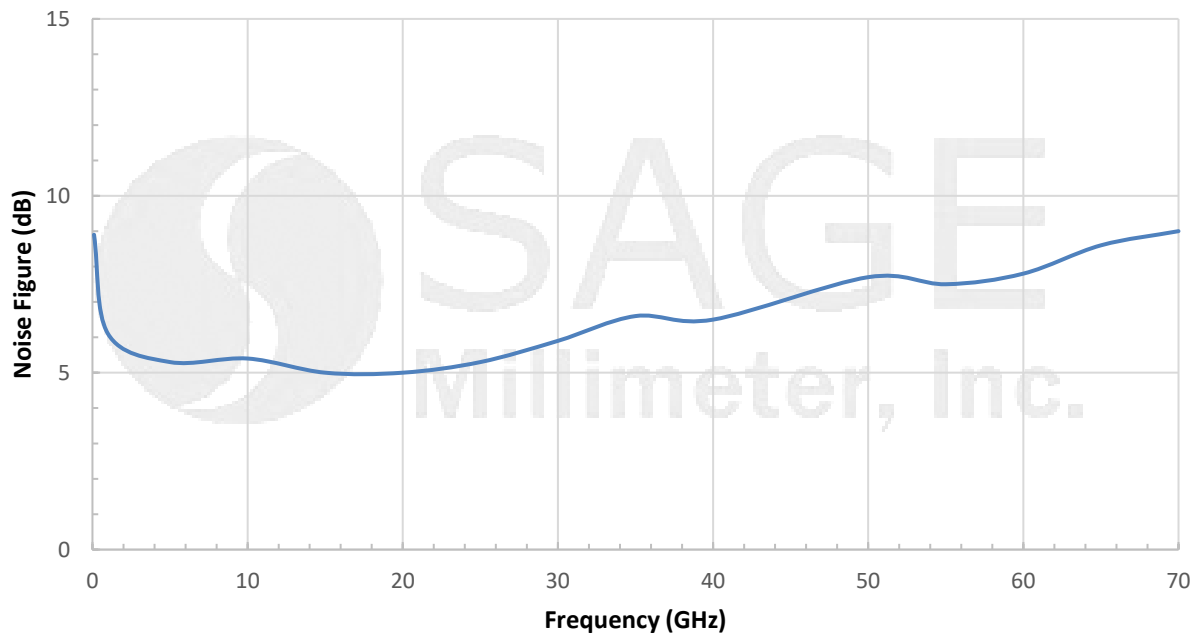
| Parameter | Minimum | Typical | Maximum |
|------------------------------------|---------------------|---------|---------------------|
| Frequency | 0.01 GHz | | 70.00 GHz |
| Gain | | 30 dB | |
| P _{1dB} | | +15 dBm | |
| P _{sat} | | +16 dBm | |
| Noise Figure | | 6.0 dB | |
| RF Input Damage Level | | | 0 dBm |
| Input Return Loss | | 10 dB | |
| Output Return Loss | | 10 dB | |
| Power Supply (AC Adapter Provided) | 100 V _{AC} | | 240 V _{AC} |
| Specification Temperature | | +25 °C | |
| Case Temperature | 0 °C | | +50 °C |

Mechanical Specifications:

| Item | Specification |
|--------------------|----------------------------------------------------|
| Input | 1.85 mm (F) |
| Output | 1.85 mm (F) |
| DC Bias | 2.5 mm DC Jack (AC-to-DC power converter included) |
| DC Bias Switch | Off-On Latching Switch with Indicator Light |
| Enclosure Material | Extruded Aluminum |
| Finish | Black Anodized |
| Weight | 3 lbs |
| Size | 4.89" (W) x 5.00" (L) x 1.90" (H) |
| Outline | TB-SC-2 |

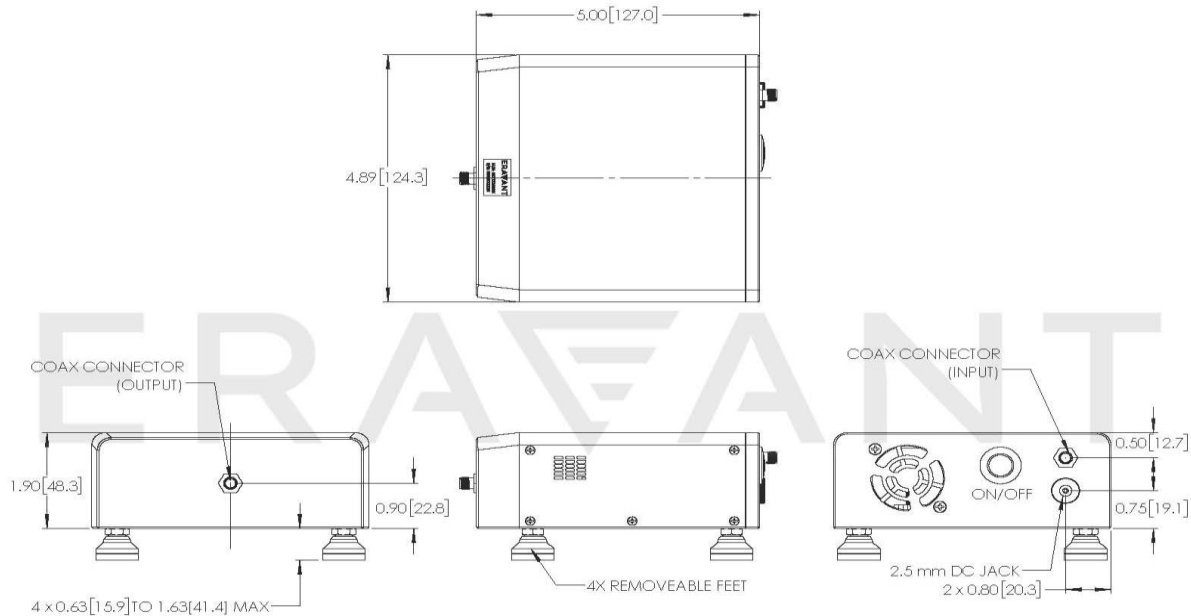


**Broadband Amplifier, 10 MHz to 70 GHz, 30 dB Gain, +15 dBm P_{1dB}****Gain and Return Loss vs. Frequency****Output Power vs. Frequency**

Broadband Amplifier, 10 MHz to 70 GHz, 30 dB Gain, +15 dBm P_{1dB}**Noise Figure vs. Frequency**

Broadband Amplifier, 10 MHz to 70 GHz, 30 dB Gain, +15 dBm P_{1dB}

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.
- AC-to-DC power converter with cord is included.
- 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, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

