

## Broadband Amplifier, 35 to 70 GHz, 35 dB Gain, +20 dBm P<sub>1dB</sub>

### Description:

**Model STB-3537033520-VFVF-S1** is a broadband benchtop amplifier with a typical small signal gain of 35 dB and a nominal P<sub>1dB</sub> of +20 dBm across the frequency range of 35 to 70 GHz. The power supply required is a single phase AC voltage in the range of 100 to 240 V<sub>AC</sub>, 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	35 GHz		70 GHz
Gain		35 dB	
P <sub>1dB</sub>		+20 dBm	
P <sub>sat</sub>		+22 dBm	
RF Input Damage Level			-3 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
Power Supply (AC Adapter Provided)	100 V <sub>AC</sub>		240 V <sub>AC</sub>
Specification Temperature		+25 °C	
Case Temperature	0 °C		+50 °C

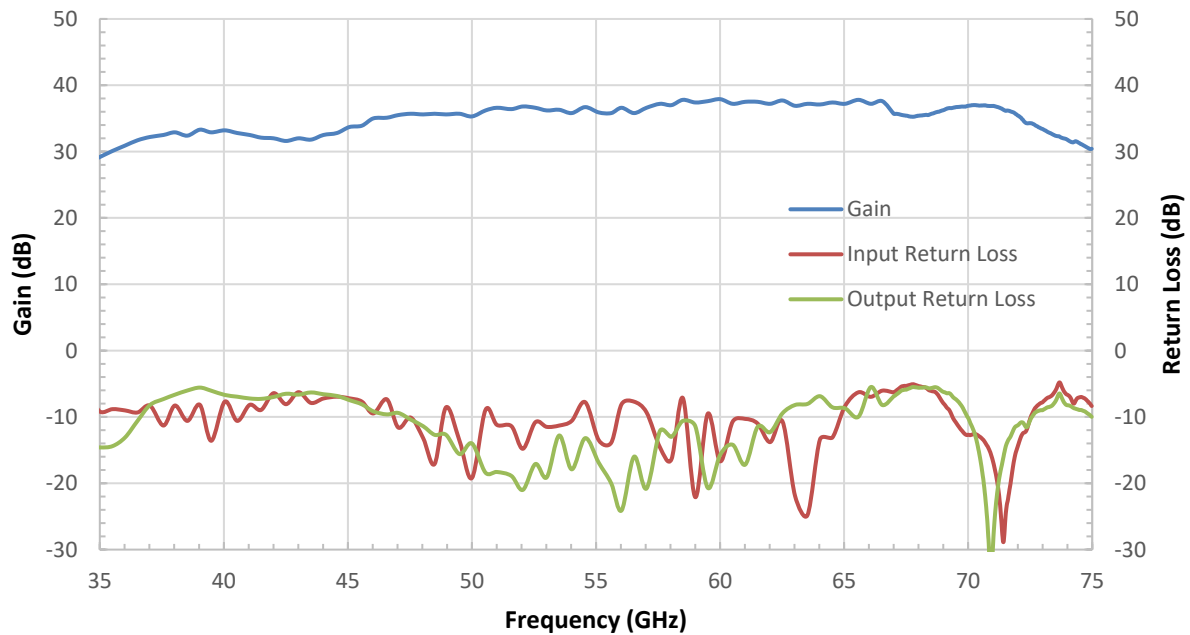
### Mechanical Specifications:

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

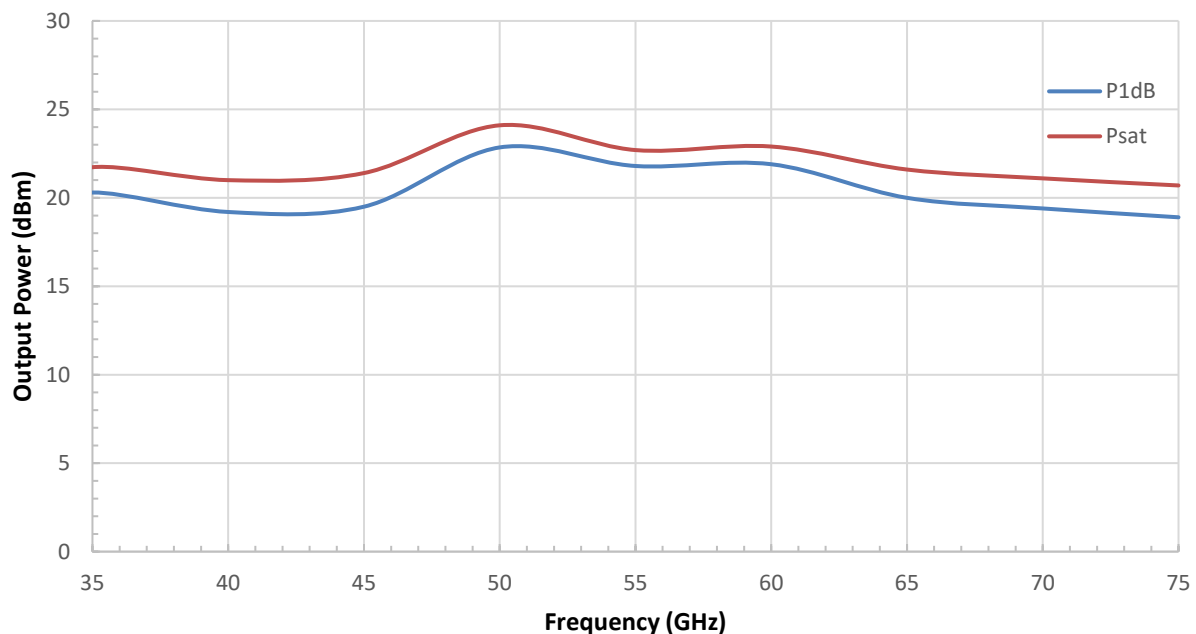


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### Gain and Return Loss vs. Frequency

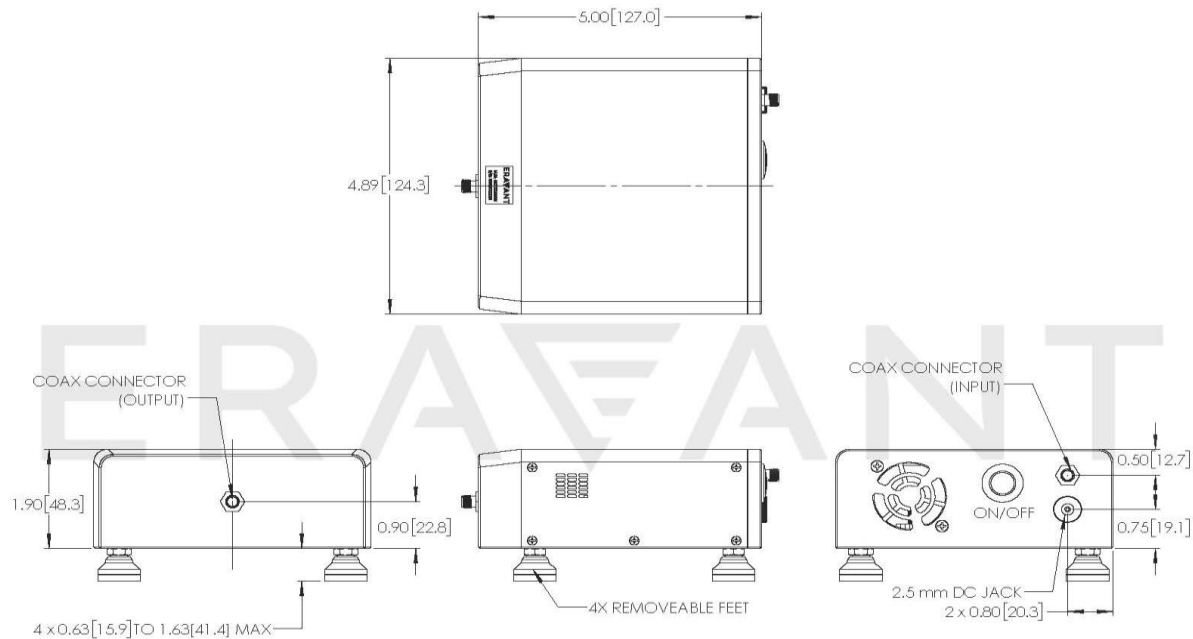


### Output Power vs. Frequency



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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.
- 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.**