

## STB-0115033018-2F2F-S1-SG

### Broadband Amplifier, 10 MHz to 50 GHz, 30 dB Gain, +18 dBm P<sub>1dB</sub>

**STB-0115033018-2F2F-S1-SG** is a broadband benchtop driver amplifier with a typical small signal gain of 30 dB across the frequency range of 10 MHz to 50 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 2.4 mm connectors.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.01 GHz		50 GHz
Gain	25 dB	30 dB	
P <sub>1dB</sub> (0.01-40 GHz)	+15 dBm	+18 dBm	
P <sub>1dB</sub> (40-45 GHz)	+12 dBm	+14 dBm	
P <sub>1dB</sub> (45-50 GHz)	+8 dBm	+11 dBm	
P <sub>sat</sub> (0.01-40 GHz )		+22 dBm	
P <sub>sat</sub> (40-45 GHz )		+18 dBm	
P <sub>sat</sub> (45-50 GHz )		+12 dBm	
Noise Figure (0.01-26 GHz)		6 dB	7 dB
Noise Figure (26-50 GHz)		7 dB	8 dB
RF Input Damage Level			0 dBm
Input Return Loss		8 dB	
Output Return Loss		8 dB	
Power Supply (AC Adapter Provided)	100 V <sub>AC</sub>		240 V <sub>AC</sub>
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

#### ECCN

EAR99

#### FEATURES

- Ultra-Broadband Coverage
- Good Gain Flatness

#### APPLICATIONS

- Bench Top Power Amplification
- Antenna Range
- Power Boosting

#### ACCESSORIES INCLUDED

- Wavguide Screwdriver, 3/32 Hex Head, SWH-332-DS
- SMA Connector Torque Wrench, [SCH-08008-S1](#)

#### SUPPLEMENTAL DETAILS

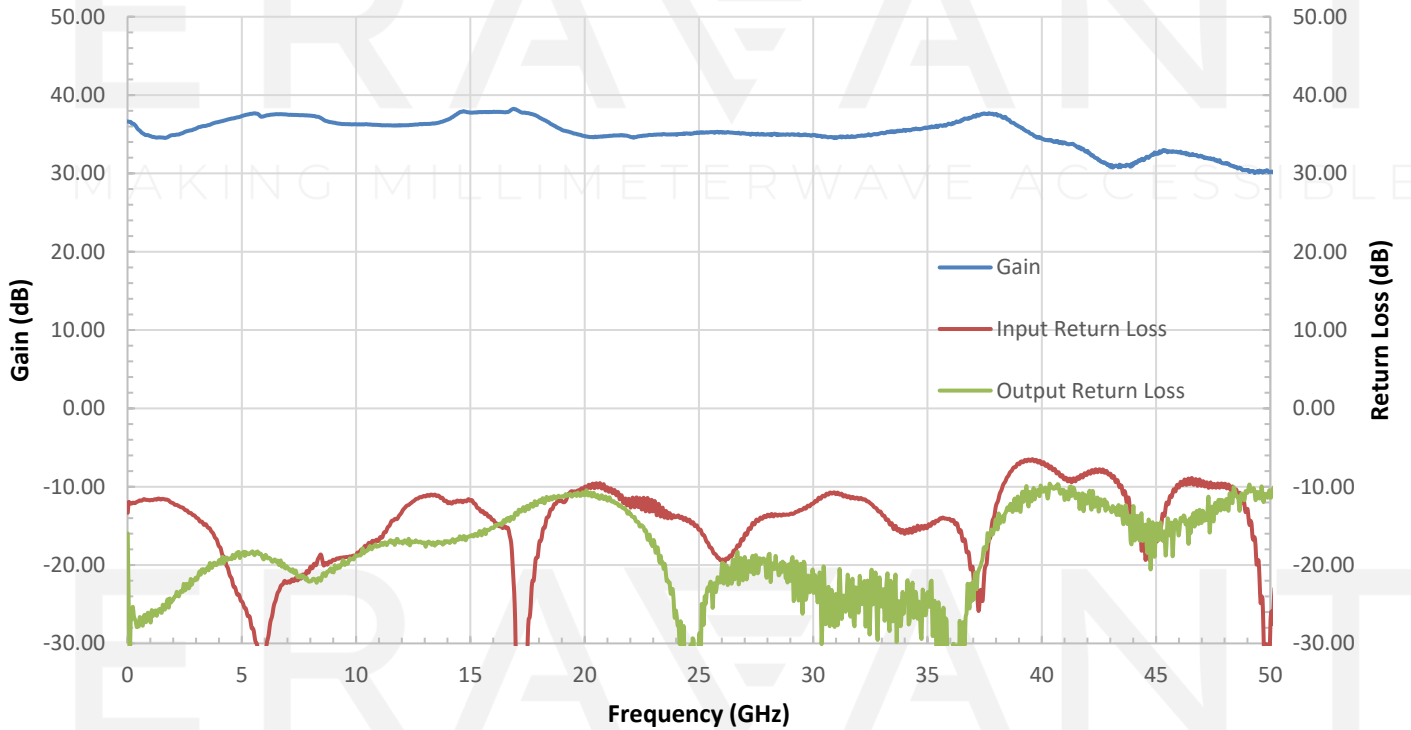
MAKING MILLIMETERWAVE ACCESSIBLE



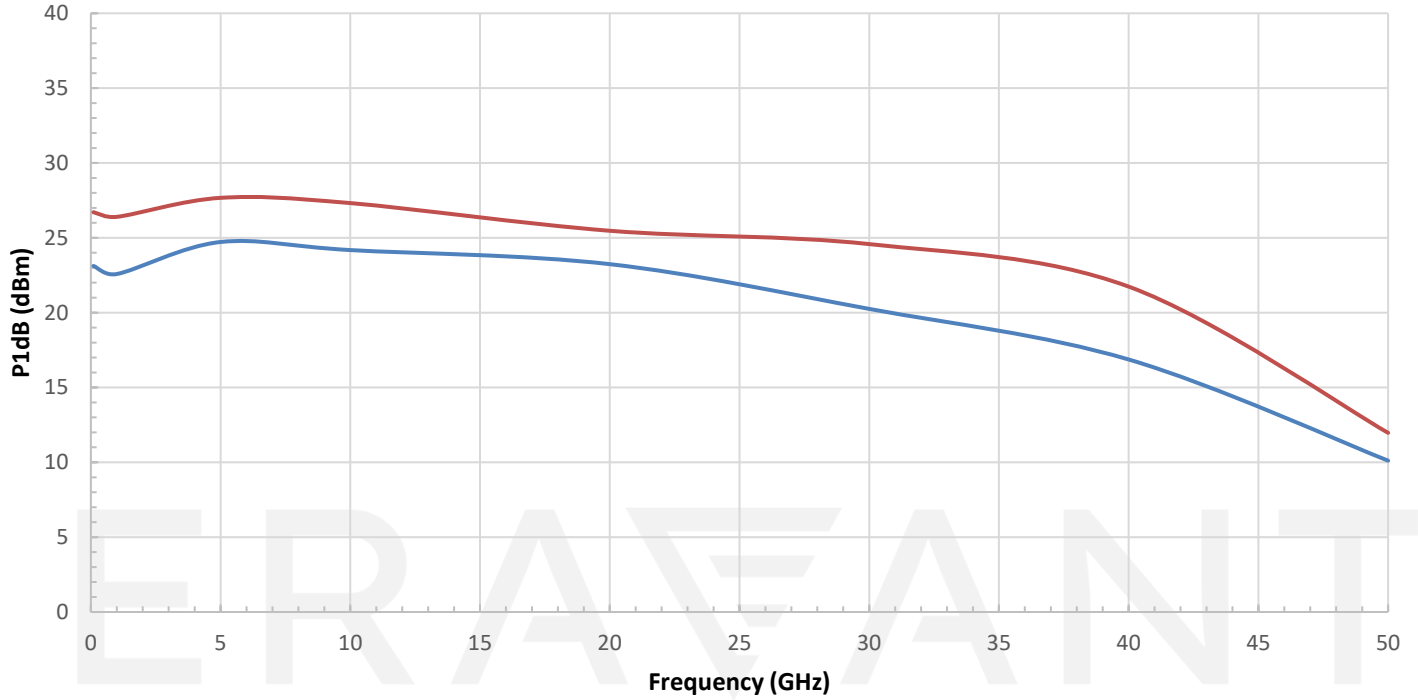
### Mechanical Specifications:

Item	Specification
Input	2.4 mm (F)
Output	2.4 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

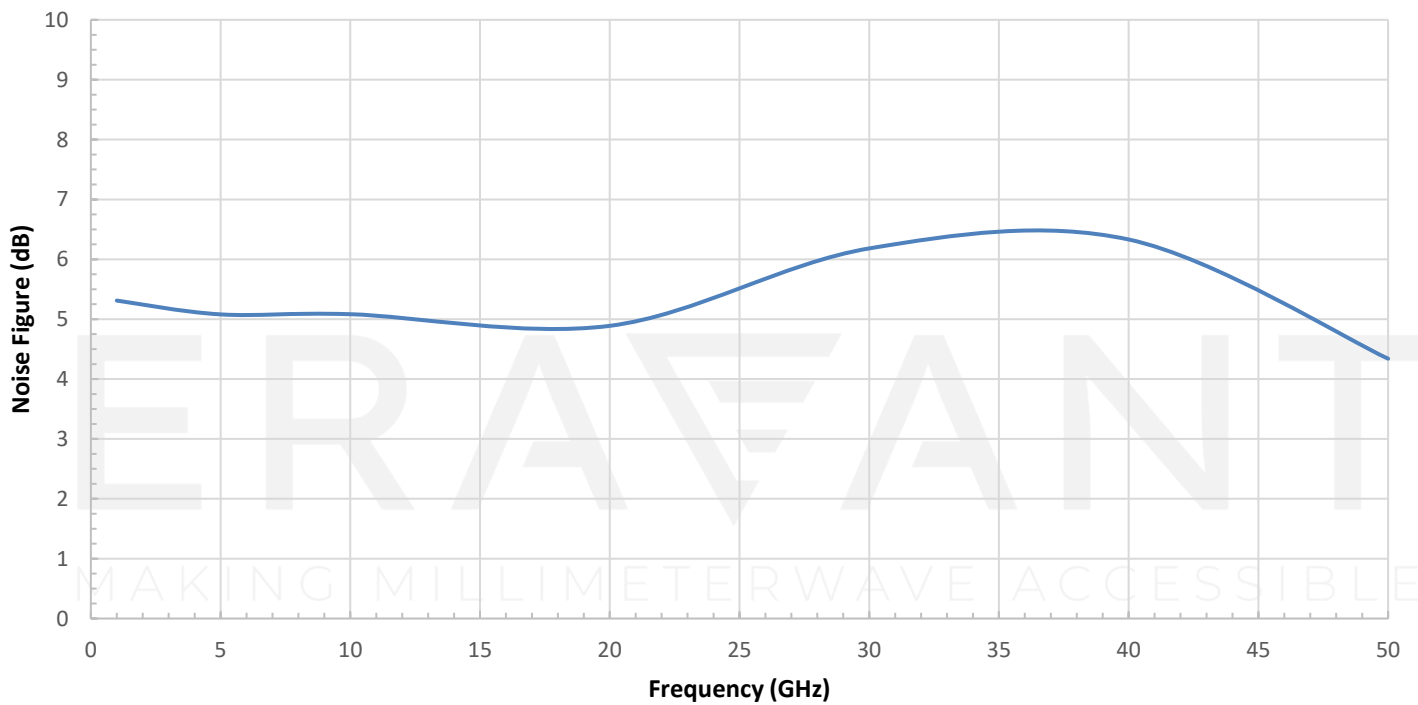
### Gain and Return Loss vs. Frequency



### P1dB vs. Frequency

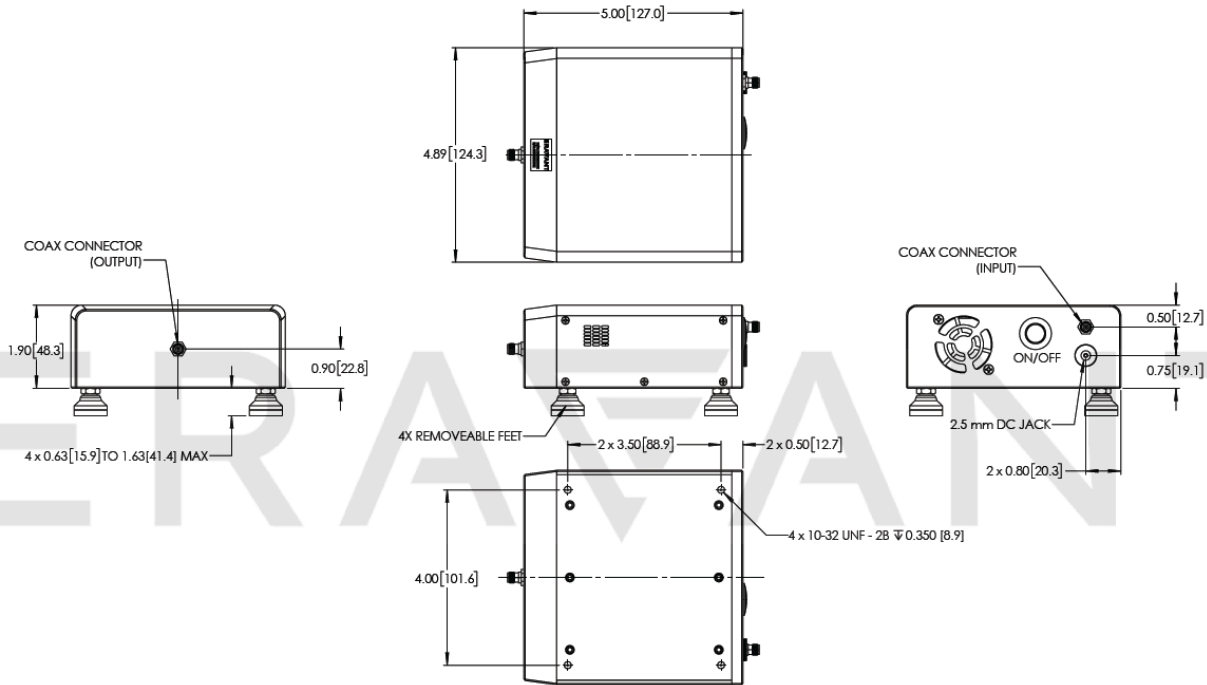


### Noise Figure vs. Frequency



## STB-0115033018-2F2F-S1-SG

**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



FEET REMOVED TO SHOW MOUNTING LOCATIONS

### NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room 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.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model SCH-08008-S1 is highly recommended.