

SBP-2034433530-2F2F-H1-HR

20 to 44 GHz, Power Amplifier, 35 dB Gain, +32 dBm P_{sat}

SBP-2034433530-2F2F-H1-HR is a power amplifier with a typical small signal gain of 35 dB and a nominal P_{sat} of +32 dBm across the frequency range of 20 to 44 GHz. The DC power requirement for the amplifier is +8 V_{DC}/ 6.0 A. The mechanical configuration offers an in-line structure with 2.4 mm female connectors. Other port configurations, such as K connectors and 1.85 mm connectors for either the input or output port, are also available under different model numbers. A heat sink is included for cooling.



Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|-------------------------------|---------|---------------------|---------------------|
| Frequency Range | 20 GHz | | 44 GHz |
| Small Signal Gain | | 35 dB | |
| P _{1dB} | | +30 dBm | |
| P _{Sat} | | +32 dBm | |
| P _{In} (Damage) | | | +18 dBm |
| Input Return Loss | | 10 dB | |
| Output Return Loss | | 10 dB | |
| DC Voltage | | +8 V _{DC} | +12 V _{DC} |
| DC Supply Current (Saturated) | | 6.0 A | |
| Fan DC Voltage | | +12 V _{DC} | |
| Specification Temperature | | +25°C | |
| Operating Temperature | 0°C | | +50°C |

Mechanical Specifications:

| Item | Specification |
|----------------------|----------------------------|
| Input/Output Ports | 2.4 mm Female Connector |
| Bias | Solder Pin |
| Case Material | Aluminum |
| Finish | Gold Plated, Black Anodize |
| Fan Connector | 2 wire leads |
| Degree of Protection | IP40 |
| Outline | BP-SC-2-SR-H95 |

ECCN

3A001.b.4

FEATURES

- Forced Air Cooling
- In-line Port Configuration
- High Output Power

APPLICATIONS

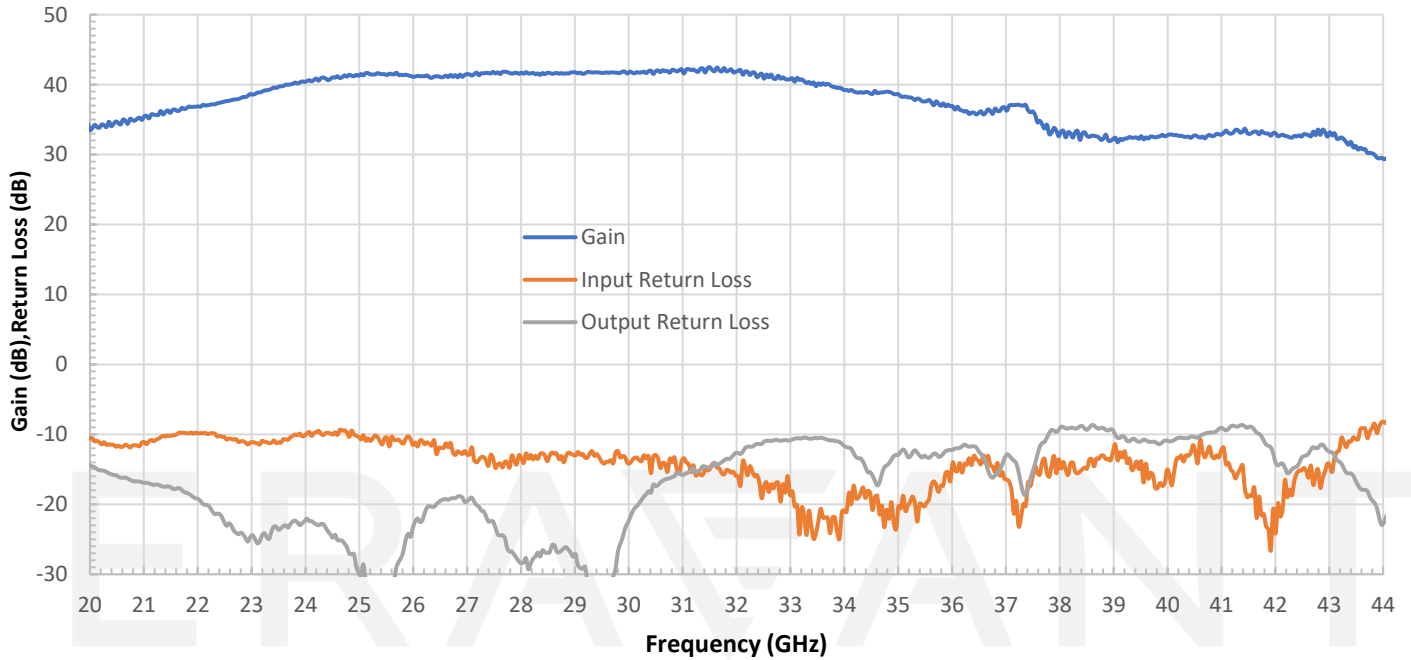
- Communications Systems
- Test Equipment
- Radar Systems
- SATCOM

SUPPLEMENTAL DETAILS

SBP-2034433530-2F2F-H1-HR

Gain and Return Loss vs. Frequency

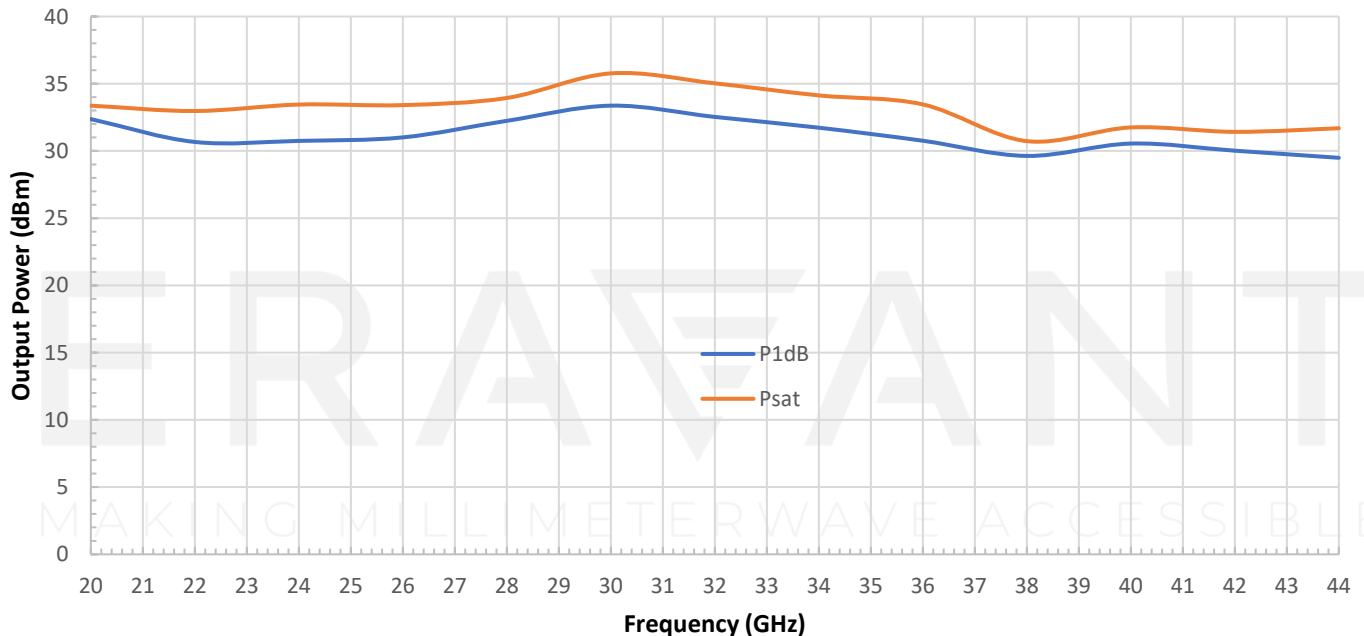
Bias: +8 V_{DC}/3,030 mA



Output Power vs. Frequency

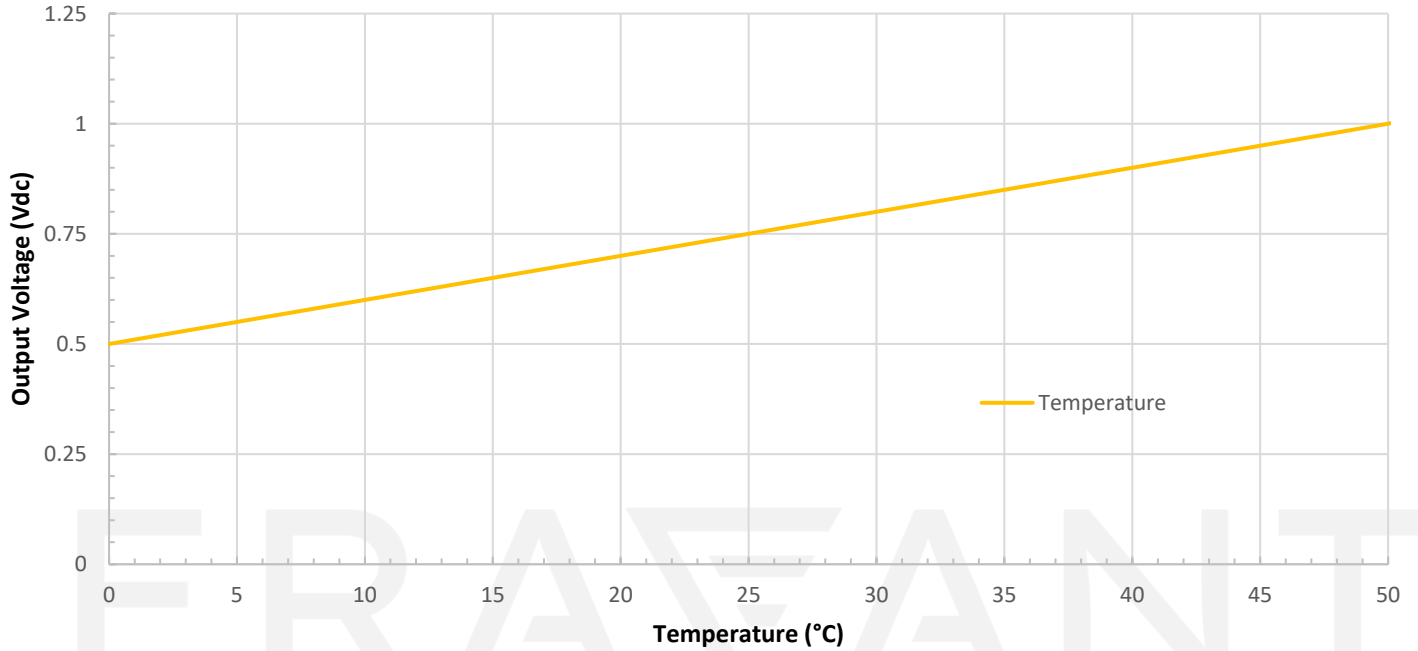
Bias: +8 V_{DC}/3,030 mA

RFsat: +8Vdc/6,000 mA



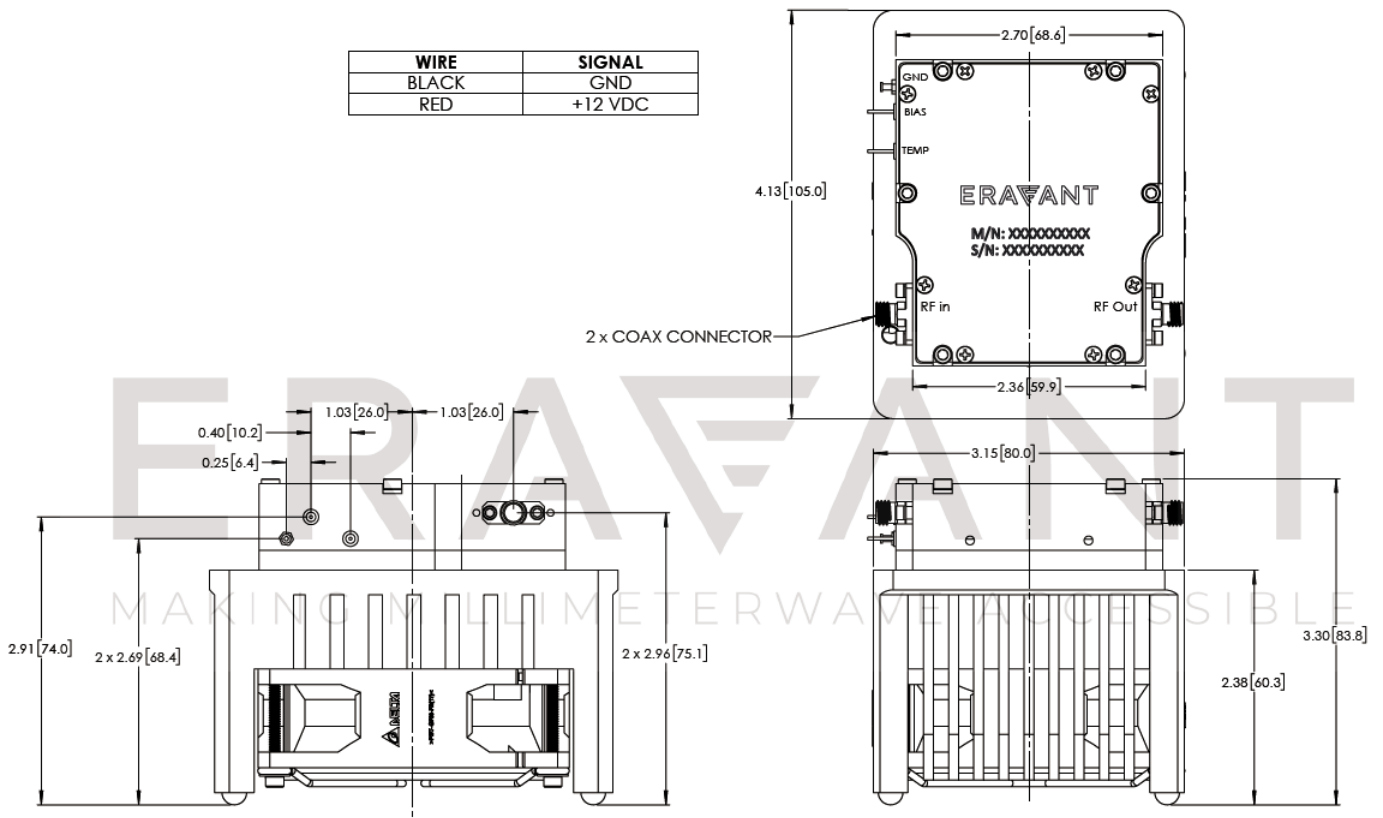
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Temperature vs Temp Sensor Output Voltage



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

| WIRE | SIGNAL |
|-------|---------|
| BLACK | GND |
| RED | +12 VDC |



NOTE:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- Other mechanical configurations with other frequency bands 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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

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