



K-Band Power Amplifier, 18 to 26.5 GHz, 30 dB Gain, +30 dBm P_{1dB}

Description:

Model SBP-1832733030-KFKF-S1 is a power amplifier with a typical small signal gain of 30 dB and a nominal P_{1dB} of +30 dBm across the frequency range of 18 to 26.5 GHz. The amplifier exhibits high output power and 10 dB typical input and output return loss. The DC power requirement for the amplifier is +8 V_{DC}/1,500 mA. The RF connectors are female K connectors. Other port configurations are available under different model numbers.



Features:

- Full Waveguide Band Coverage
- High Output Power

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|-----------------------------------|--------------------|--------------------|---------------------|
| Frequency | 18.0 GHz | | 26.5 GHz |
| Gain | | 30 dB | |
| P _{1dB} (18 to 20 GHz) | | +28 dBm | |
| P _{sat} (18 to 20 GHz) | | +29 dBm | |
| P _{1dB} (20 to 26.5 GHz) | | +30 dBm | |
| P _{sat} (20 to 26.5 GHz) | | +31 dBm | |
| Operational P _{in} | | | +18 dBm |
| Absolute (Damage) P _{in} | | | +20 dBm |
| Input Return Loss | | 10 dB | |
| Output Return Loss | | 15 dB | |
| DC Voltage | +6 V _{DC} | +8 V _{DC} | +15 V _{DC} |
| DC Supply Current | | 1,500 mA | |
| Specification Temperature | | +25 °C | |
| Operating Temperature | 0 °C | | +50 °C |

Mechanical Specifications:

| Item | Specification |
|---------------|-----------------------------------|
| Input Port | 2.92 mm (F) |
| Output Port | 2.92 mm (F) |
| Bias | Solder Pin |
| Case Material | Aluminum |
| Finish | Gold Plated |
| Weight | 1.3 Oz |
| Size | 1.20" (W) X 1.20" (L) X 0.50" (H) |
| Outline | BG-SC-1 |



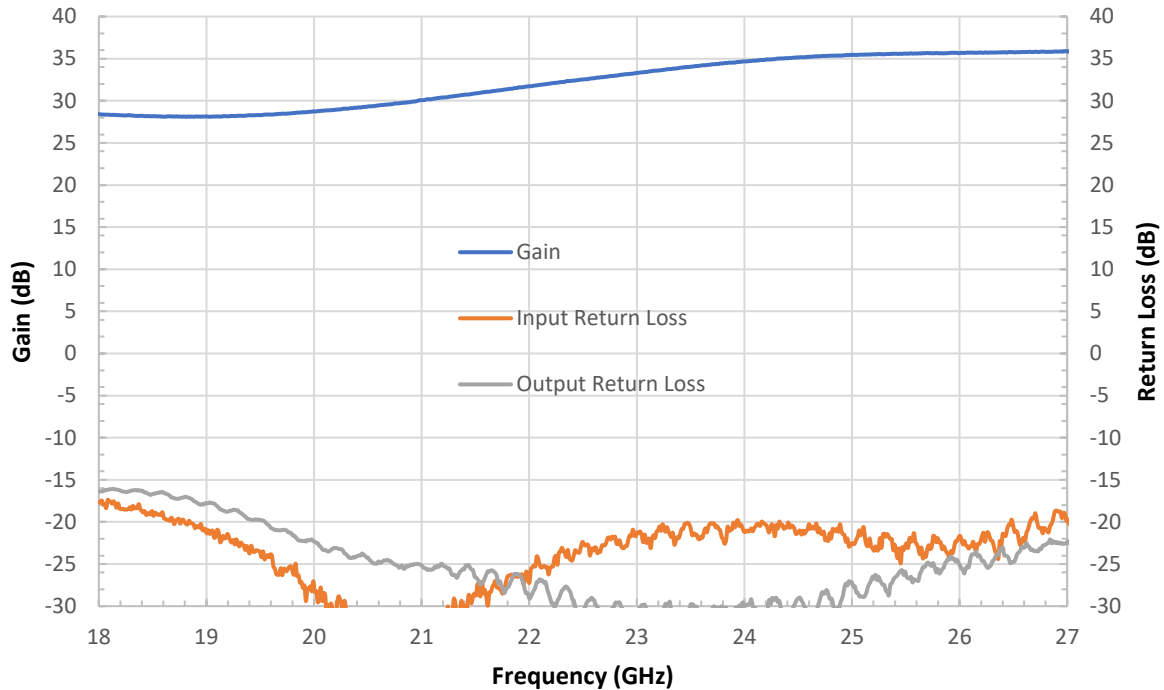


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Test Data:

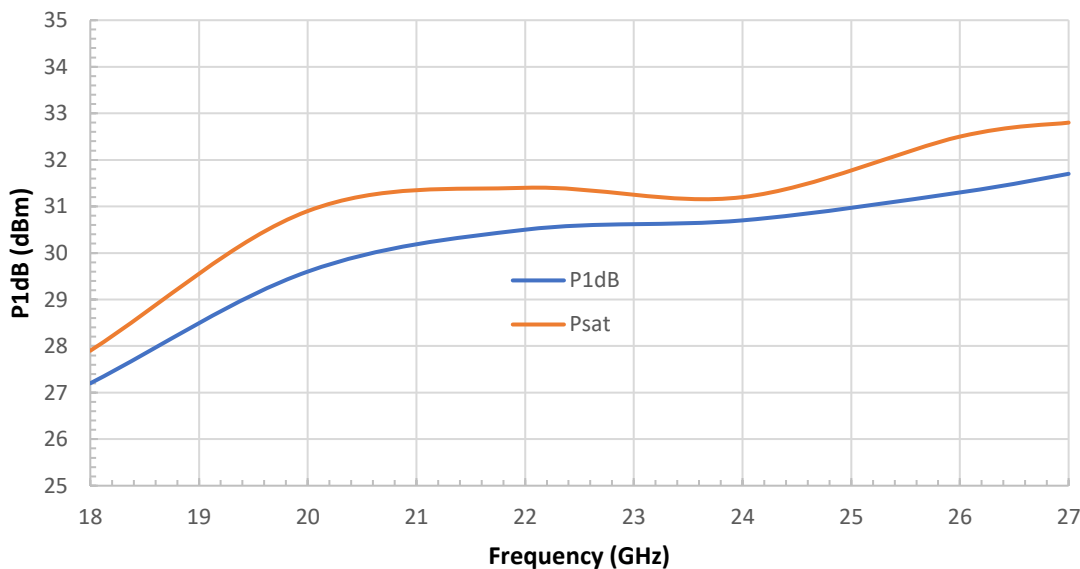
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/1.4 A



Output Power vs. Frequency

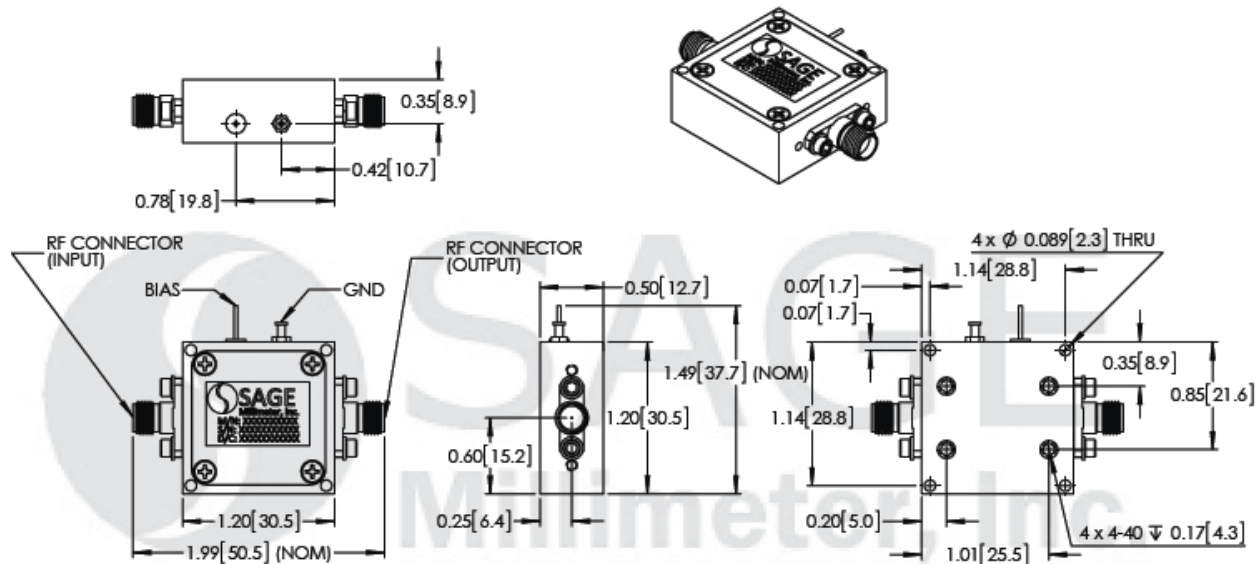
RF saturation: +8 V_{dc}/2.3 A





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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.
- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

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 (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

