



## K-Band Power Amplifier, 18 to 23 GHz, 20 dB Gain, +30 dBm P<sub>1dB</sub>

### Description:

**Model SBP-1832332030-KFKF-E3** is a power amplifier with a typical small signal gain of 20 dB and a nominal P<sub>1dB</sub> of +30 dBm across the frequency range of 18 to 23 GHz. The amplifier exhibits high output power and 9 dB typical input and output return loss. The DC power requirement for the amplifier is +12 V<sub>DC</sub>/1.5 A. The RF connectors are female K connectors for both input and output. Other port configurations, such as WR-42 waveguides for either the input or output port, are also available under different model numbers.



### Features:

- Broadband Coverage
- High Output Power
- Moderate Gain

### Applications:

- Radar Systems
- Communication Systems
- Test Equipment

### Electrical Specifications:

| Parameter                 | Minimum | Typical               | Maximum |
|---------------------------|---------|-----------------------|---------|
| Frequency                 | 18 GHz  |                       | 23 GHz  |
| Gain                      |         | 20 dB                 |         |
| Gain Flatness             |         | ± 2 dB                |         |
| P <sub>1dB</sub>          |         | +30 dBm               |         |
| P <sub>sat</sub>          |         | +31 dBm               |         |
| P <sub>in</sub>           |         |                       | +15 dBm |
| Input Return Loss         |         | 9 dB                  |         |
| Output Return Loss        |         | 9 dB                  |         |
| DC Voltage                |         | +12.0 V <sub>DC</sub> |         |
| DC Supply Current         |         | 1.5 A                 |         |
| Specification Temperature |         | +25 °C                |         |
| Operating Temperature     | 0 °C    |                       | +50 °C  |

### Mechanical Specifications:

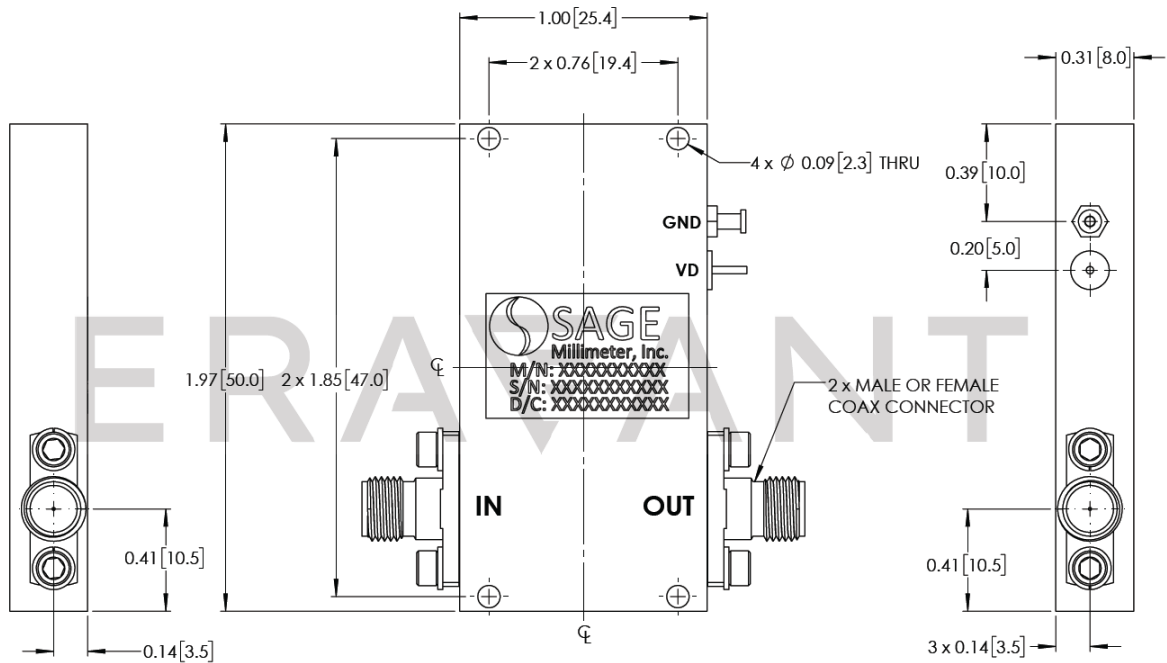
| Item          | Specification                     |
|---------------|-----------------------------------|
| Input         | K(F)                              |
| Output        | K(F)                              |
| Bias          | Solder Pin                        |
| Case Material | Aluminum                          |
| Finish        | Gold Plated                       |
| Weight        | 7.1 Oz                            |
| Size          | 1.97" (L) x 1.00" (W) x 0.31" (H) |
| Outline       | BP-ZC-12                          |





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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, slightly.
- 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.**

