

34 to 37 GHz Power Amplifier, 45 dB Gain, +35 dBm P_{1dB}

Description:

Model SBP-3433734535-KF28-E3 is a power amplifier with a typical small signal gain of 45 dB and a nominal P_{1dB} of +35 dBm across the frequency range of 34 to 37 GHz. The DC power requirement for the amplifier is +28 V_{DC}/5 A. The RF input is a 2.92 mm female connector and the output is a WR-28 Uni-Guide™ waveguide. Other port configurations, such as male 2.92 mm connectors for either the input or output port, are also available under different model numbers.



Features:

- High Gain
- Good Gain Flatness
- High Output Power

Applications:

- 5G System
- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	34 GHz		37 GHz
Gain		45 dB	
P _{1dB}		+35 dBm	
P _{sat}		+37 dBm	
Damage P _{in}			0 dBm
Input Return Loss		9 dB	
Output Return Loss		9 dB	
DC Voltage		+28 V _{DC}	+30 V _{DC}
DC Supply Current		5 A	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

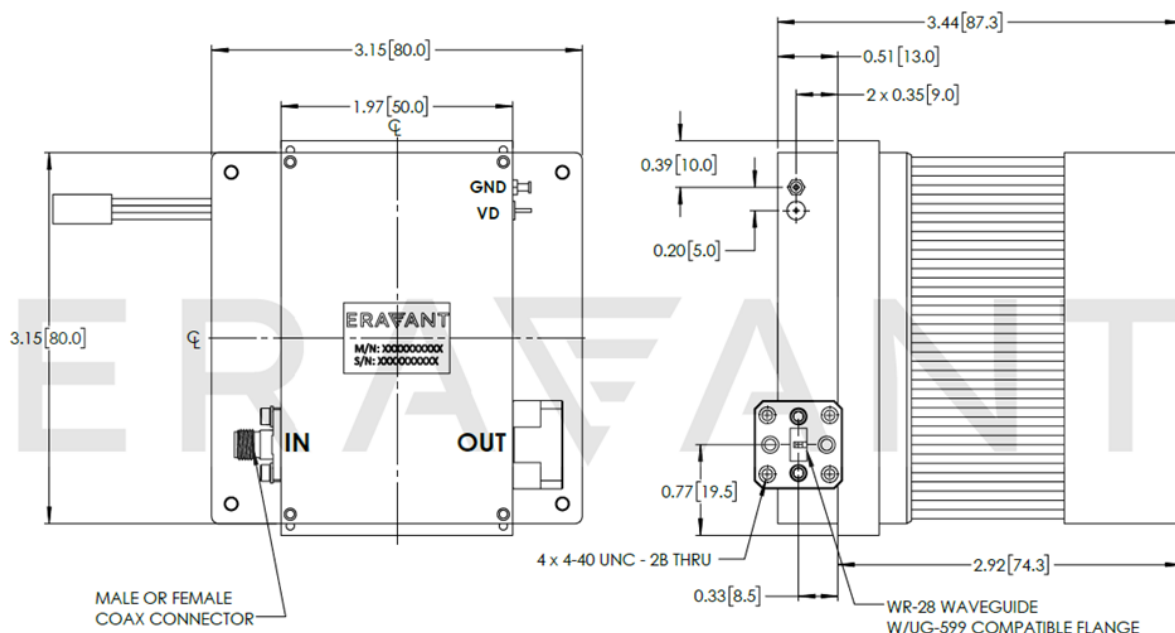
Mechanical Specifications:

Item	Connector
Input	2.92 mm (F)
Output	WR-28 Waveguide with UG-599/U Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Size	3.15" (W) X 3.15" (L) X 3.44" (H)
Outline	BP-ZA-2CW-2-H



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



Note:

- Eravant reserves the right to change the information presented without notice.
- The amplifier employs Eravant's trademarked and patent pending technology, **UniGuide™**, as its waveguide interfaces. The orientation of the input and the output waveguides can be specified through corresponding model numbers. For example, the model number for a horizontal output waveguide configuration would be **SBP-3433734535-KF28H-E3** instead of the default **SBP-3433734535-KF28-E3** which indicates vertical orientation output.
- 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.
- Any foreign objects in the waveguide will degrade the performance and/or damage the device
- 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.**