

W-Band Power Amplifier, 85 to 100 GHz, 23 dB Gain, +24 dBm P_{1dB}

Description:

Model SBP-8531042324-1F1F-S1 is a power amplifier with a typical small signal gain of 23 dB and a nominal P_{1dB} of +24 dBm across the frequency range of 85 to 100 GHz. The saturated output power of the amplifier is +26 dBm. The DC power requirement for the amplifier is +8 V_{DC}/1.8 A. The use of a heat sink is advised to assist in cooling the device. The RF connectors are female 1 mm connectors. Other port configurations are available under different model numbers.



Features:

- High Output Power

Applications:

- Test Equipment
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	85 GHz		100 GHz
Gain		23 dB	
P_{1dB}		+24 dBm	
P_{sat}		+26 dBm	
P_{in}			+15 dBm
Input Return Loss		6 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
DC Supply Current		1.8 A	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

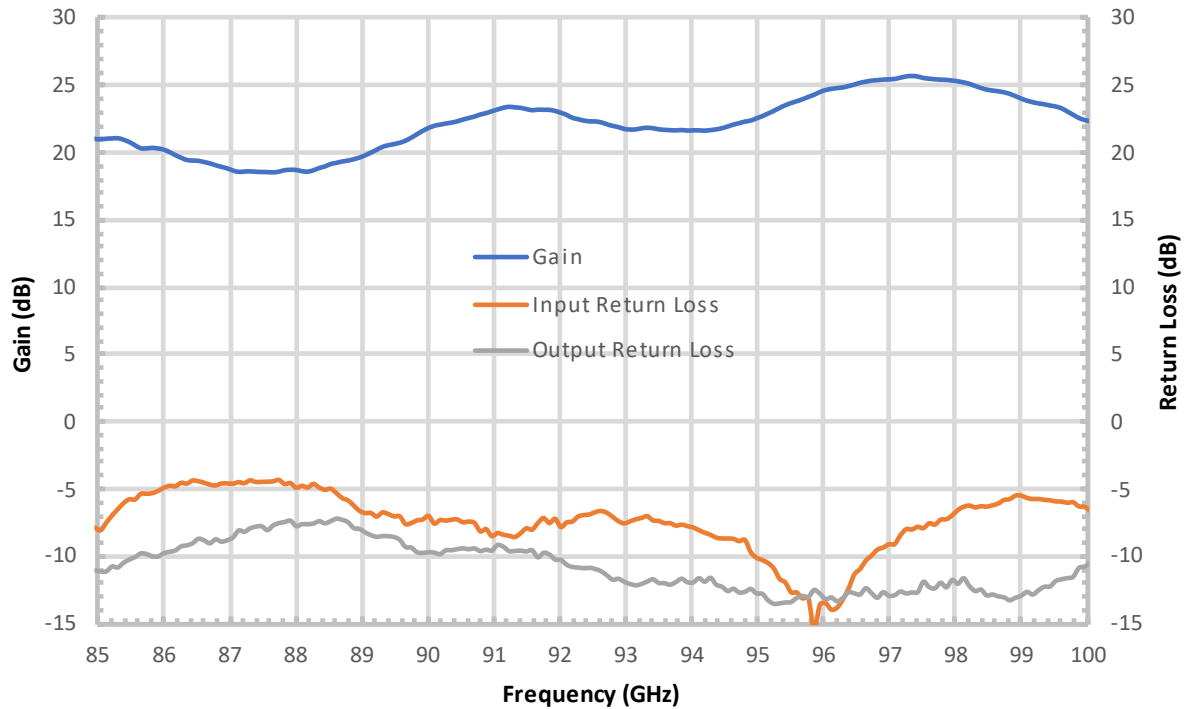
Item	Specification
Input Port	1 mm (F)
Output Port	1 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20" (W) X 1.20" (L) X 0.48" (H)
Outline	BG-SC-2



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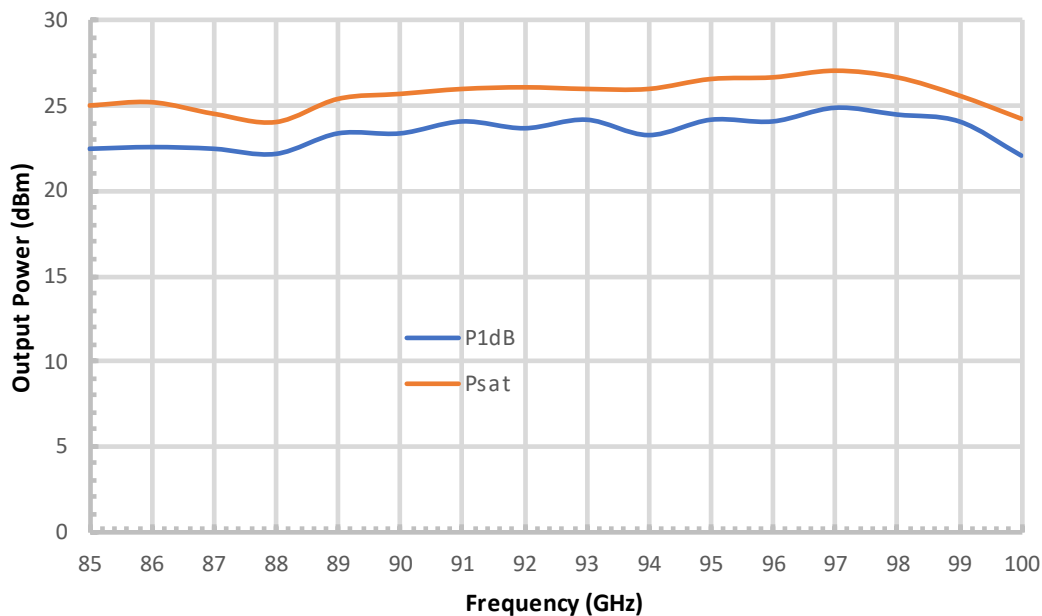
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/1.925mA



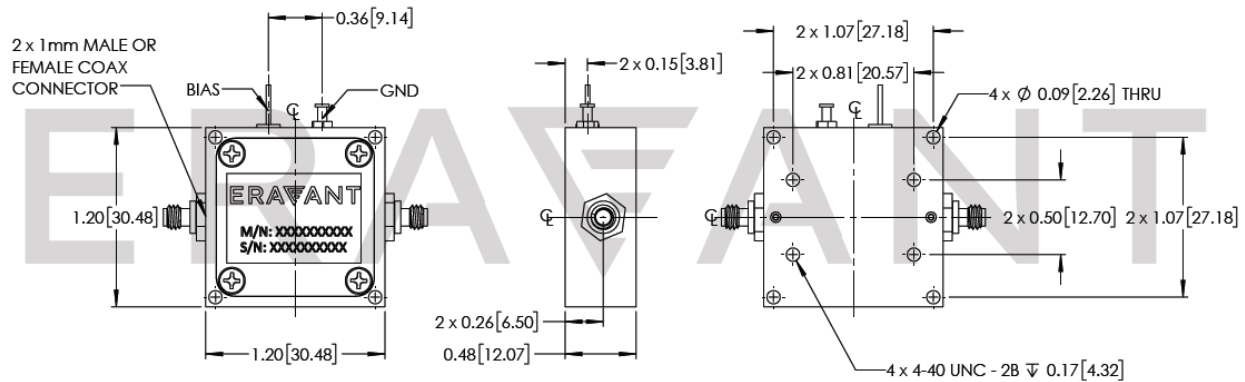
Output Power vs. Frequency

Bias: +8 V_{DC}/1925 mA



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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, 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-06004-S1, is highly recommended.**

