SBP-2634634023-2F28-E1-WP

Rev. 1.1

Broadband Power Amplifier, 26 to 40 GHz, 45 dB Gain, +26 dBm P_{1dB}

Description:

Model SBP-2634634023-2F28-E1-WP is a broadband power amplifier with a typical small signal gain of 45 dB and a nominal P_{1dB} of +26 dBm across the frequency range of 26 to 40 GHz. The RF connectors are female 2.4 mm connectors. Other port configurations, such as male 2.4 mm connectors for either the input or output port, are also available under different model numbers.

Features:

- Broadband Performance
- High Gain
- High Output Power
- Good Power and Gain Flatness

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26 GHz		40 GHz
Gain		45 dB	
P_{1dB}		+23 dB	
P_{SAT}		+25 dB	
Return Loss		10 dB	
Specification Temperature		+25 ˚C	
Case Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Connector	2.4 mm (F)
Output Connector	WR-28 Waveguide with UG595/U Flange
Bias	Solder Pin
Outline	BG-SA-2CW-H45

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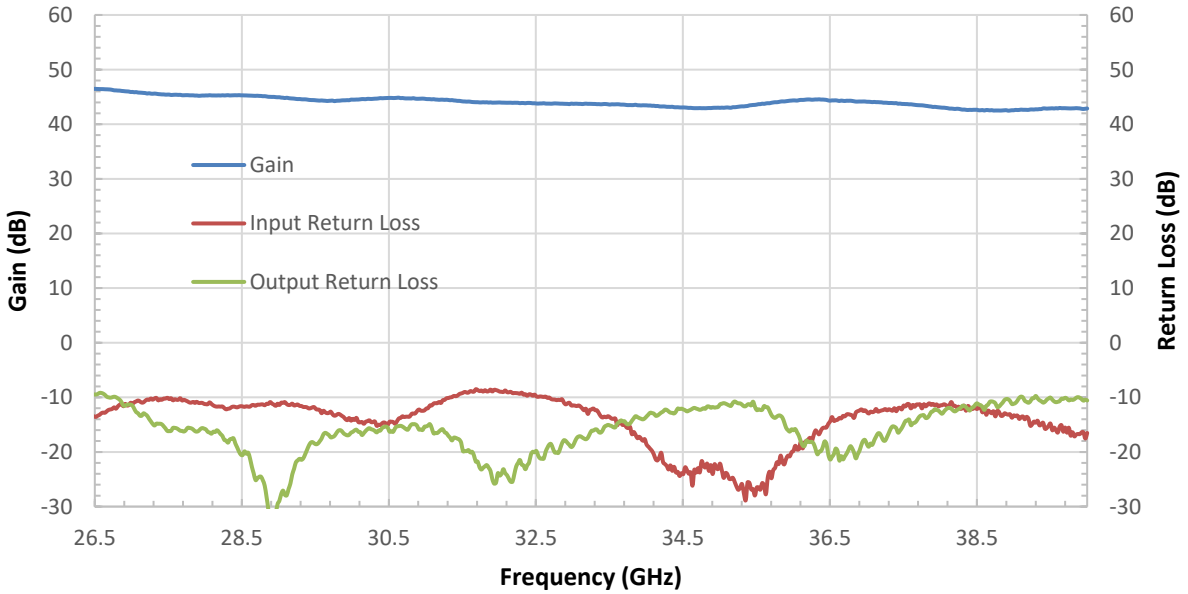
Broadband Power Amplifier, 26 to 40 GHz, 45 dB Gain, +26 dBm P_{1dB}

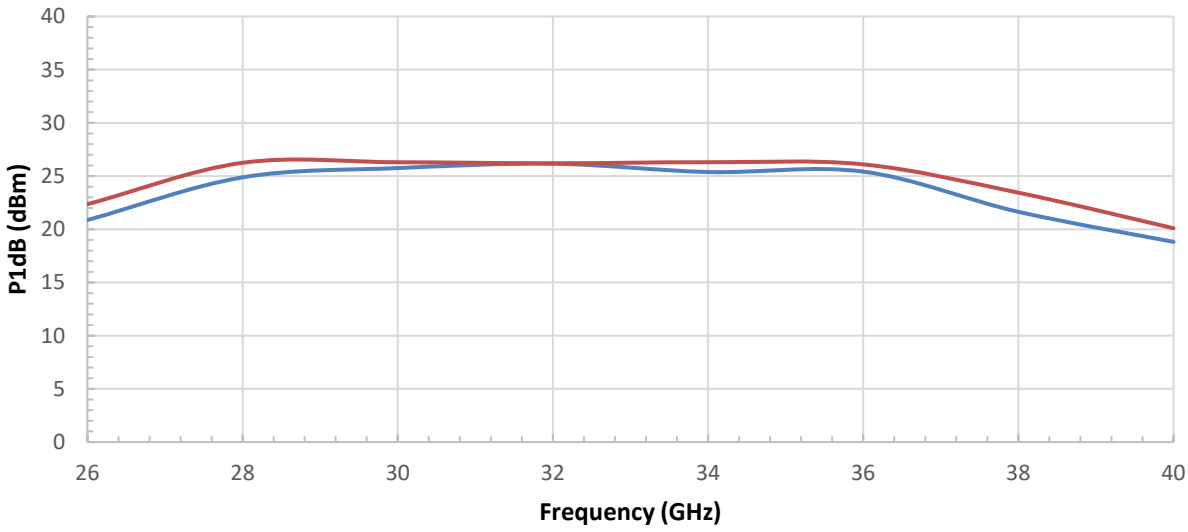
Gain and Return Loss vs. Frequency

Bias: +8V_{DC}/1178 mA



P1dB vs. Frequency

Bias: +8V_{DC}/1178 mA



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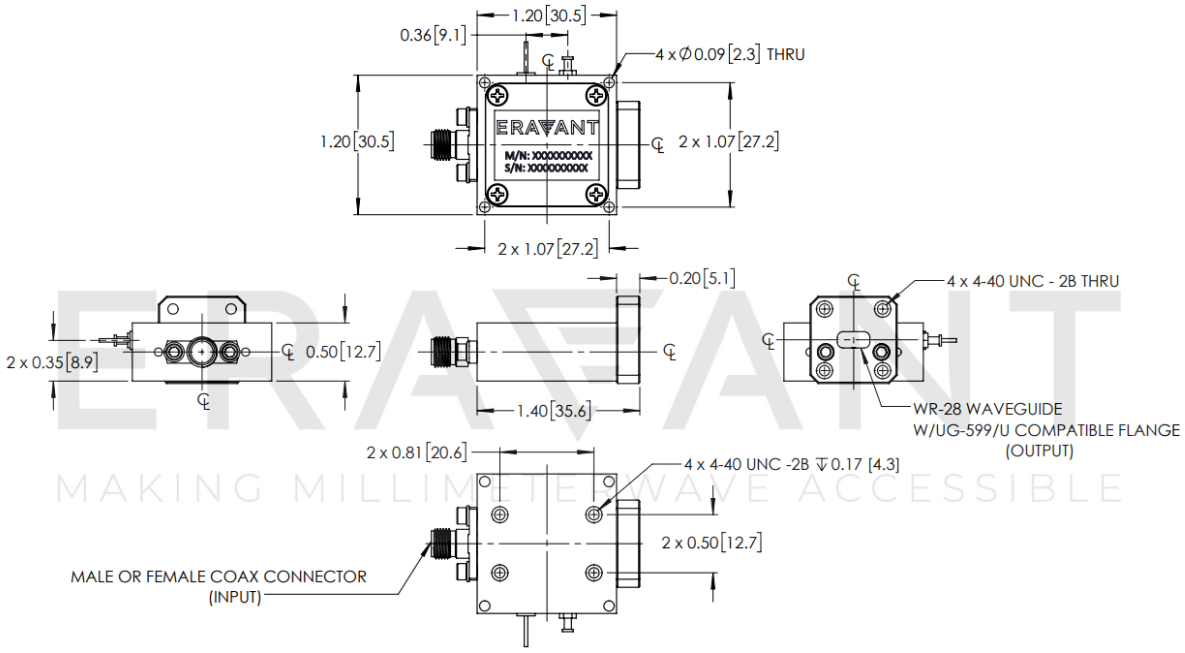

Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])

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.
- SAGE Millimeter, Inc. 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.
- Exceeding the maximum bias voltage of **+9 V_{DC}** will cause amplifier overheating and result the instability.
- 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. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**