



Bench Top Amplifier, 34.5 to 36.5 GHz, 50 dB Gain, +40 dBm P_{SAT}

Description:

Model STB-3533735038-KF28-S1 is a Ka Band bench top high power amplifier with a typical small signal gain of 50 dB and a nominal P_{1dB} of +38 dBm and P_{SAT} of +40 dBm in the frequency range of 34.5 to 36.5 GHz. The power supply required is a single phase AC voltage in the range of 100 to 240 V_{AC}, which can be supplied by a wall outlet. The LED light helps to indicate the working status of the amplifier. The input port and the output ports of the power amplifier are K(F) and WR-28 waveguide with UG599/U flange, respectively.



Features:

- Instrumentation Grade
- High Output Power
- Good Gain Flatness

Applications:

- Bench Top Power Amplification
- Device Fab Reliability Testing
- Power Boosting

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	34.5 GHz		36.5 GHz
Gain		50 dB	
P _{1dB}		+38 dBm	
P _{SAT}		+40 dBm	
RF Input Damage Level			+5 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
Power Supply (AC Adapter Provided)	100 V _{AC}		240 V _{AC}
Specification Temperature		+25 °C	
Operation Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input	K(F)
Output	WR-28 Waveguide with UG599/U Flange
DC Bias	2.5 mm DC Jack (AC-to-DC power converter included)
DC Bias Switch	On-Off Rocker Switch with Indicator Light
Enclosure Material	Extruded Aluminum
Finish	Black Anodized
Weight	12.0 lbs
Size	8.12" (W) x 12.09" (L) x 3.20" (H)
Outline	TB-SA-CW

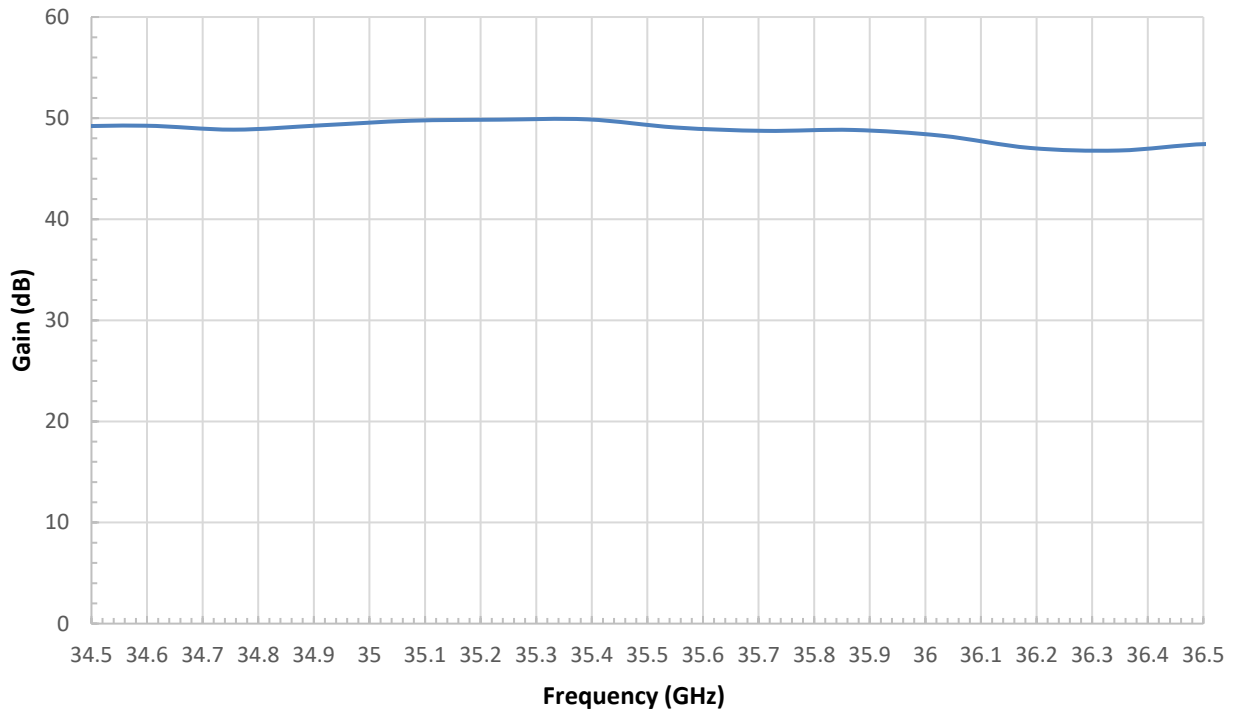




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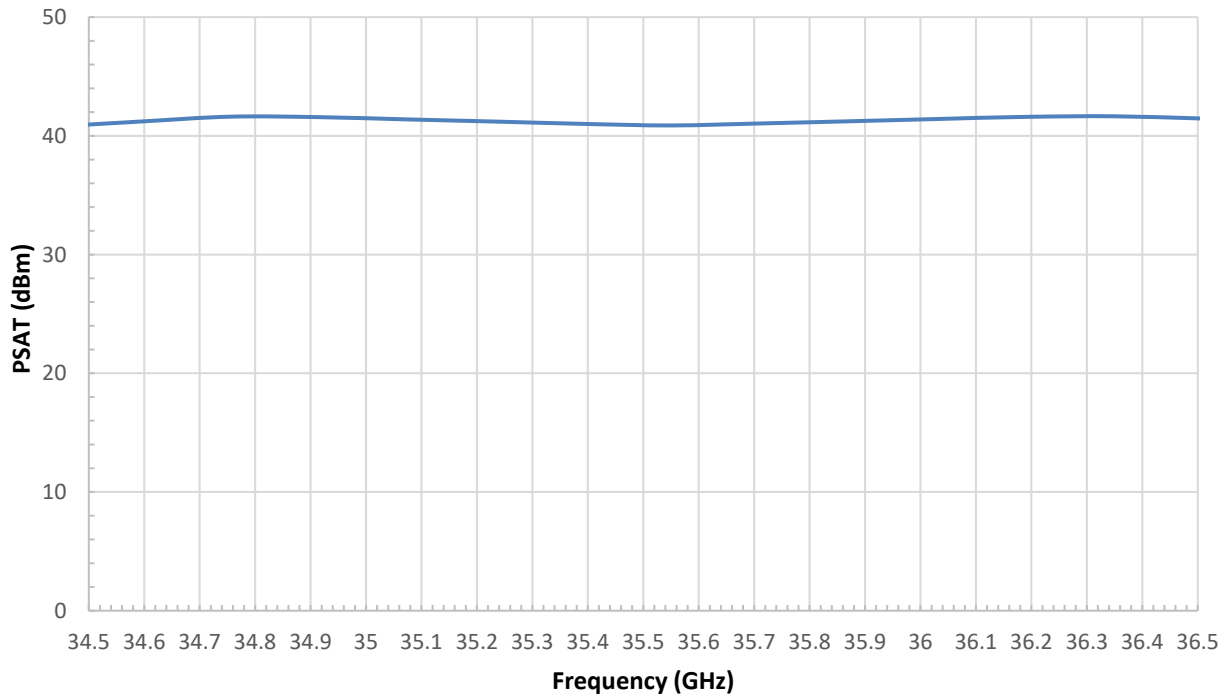
Typical Gain vs. Frequency

DC Bias: +12V / 10 A



Typical P_{SAT} vs Frequency

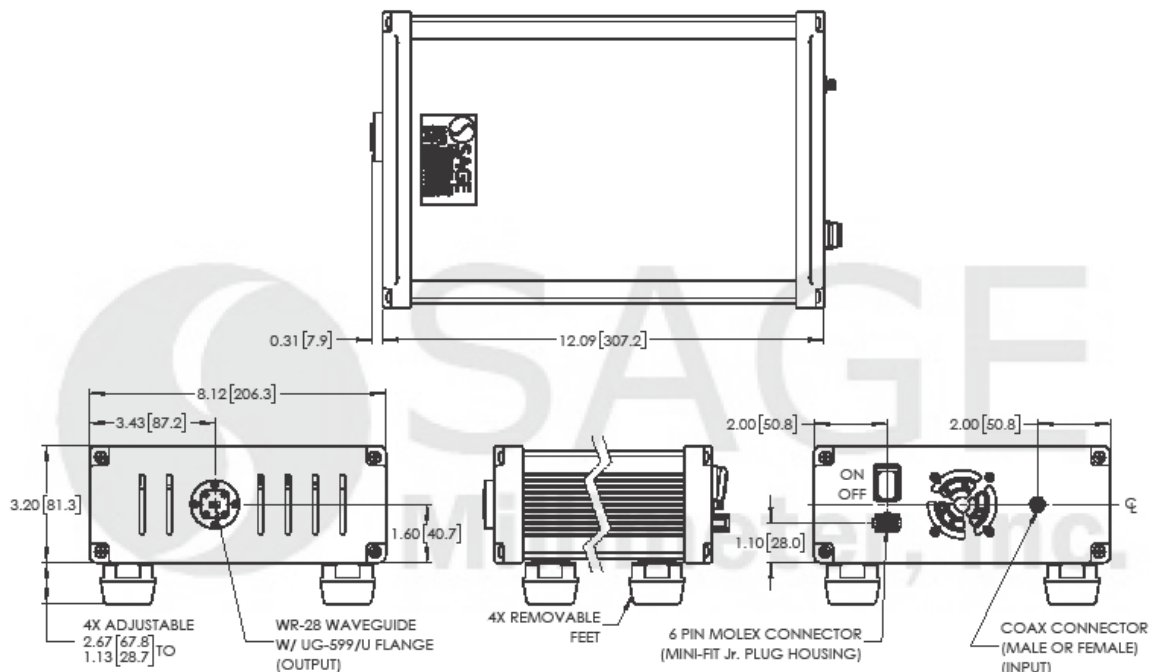
DC Bias: +12V/10A





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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 +35 °C case temperature.
- AC-to-DC power converter with cord is included.
- Other mechanical configurations are available under different model numbers.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

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 additional cooling if necessary.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

