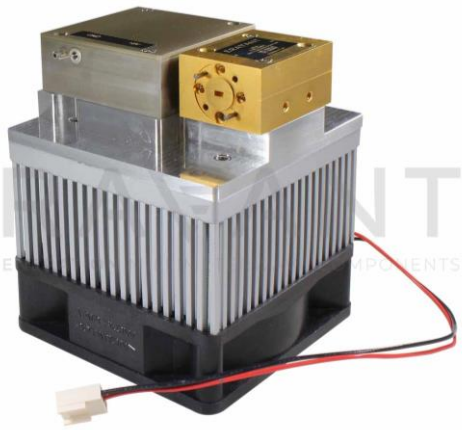
SBP-7138633026-1212-E1-HR

71 to 86 GHz Power Amplifier, 30 dB Gain, +26 dBm P_{1dB}



SBP-7138633026-1212-E1-HR is a power amplifier with a typical small signal gain of 30 dB and a nominal P_{1dB} of +26 dBm across the frequency range of 71 to 86 GHz. The DC power requirement for the amplifier is +8 V_{DC}/3.0 A. The mechanical configuration is an inline structure with WR-12 waveguides and UG-387/U anti-cocking flanges. Other port configurations, such as a right angle structure with WR-12 waveguides or 1 mm connectors, are also available under different model numbers.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	71 GHz		86 GHz
Gain		30 dB	
P_{1dB}		+26 dBm	
P_{sat}		+28 dBm	
P_{in}			+15 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage		+8 V_{DC}	+12 V_{DC}
DC Supply Current (Quiescent)		3.0 A	
Supply Voltage to Fan		+12 V_{DC}	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Output	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.07 lbs
Size	3.15” (L) X 3.15” (W) X 3.83” (H)
Outline	BP-SE-2-A-BR-H95

ECCN

3A001.b.4

FEATURES

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

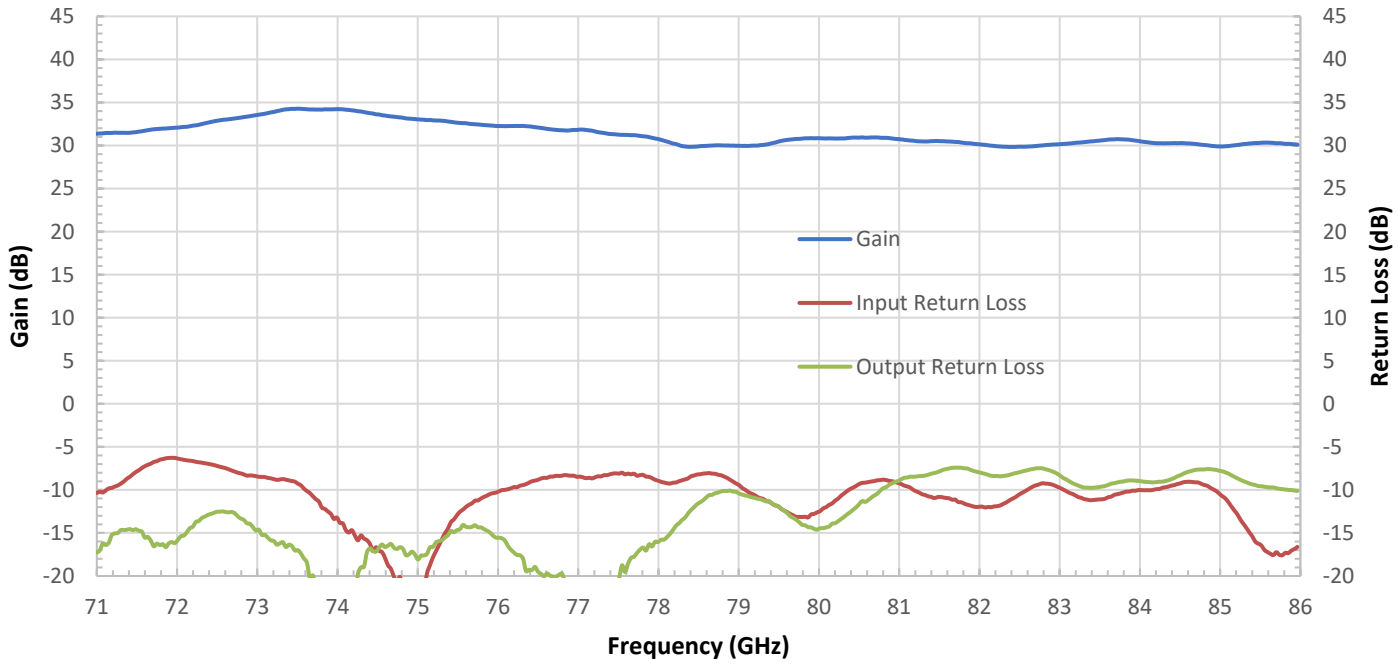
APPLICATIONS

- Radar Systems
- Communication Systems
- Test Equipment

SUPPLEMENTAL DETAILS

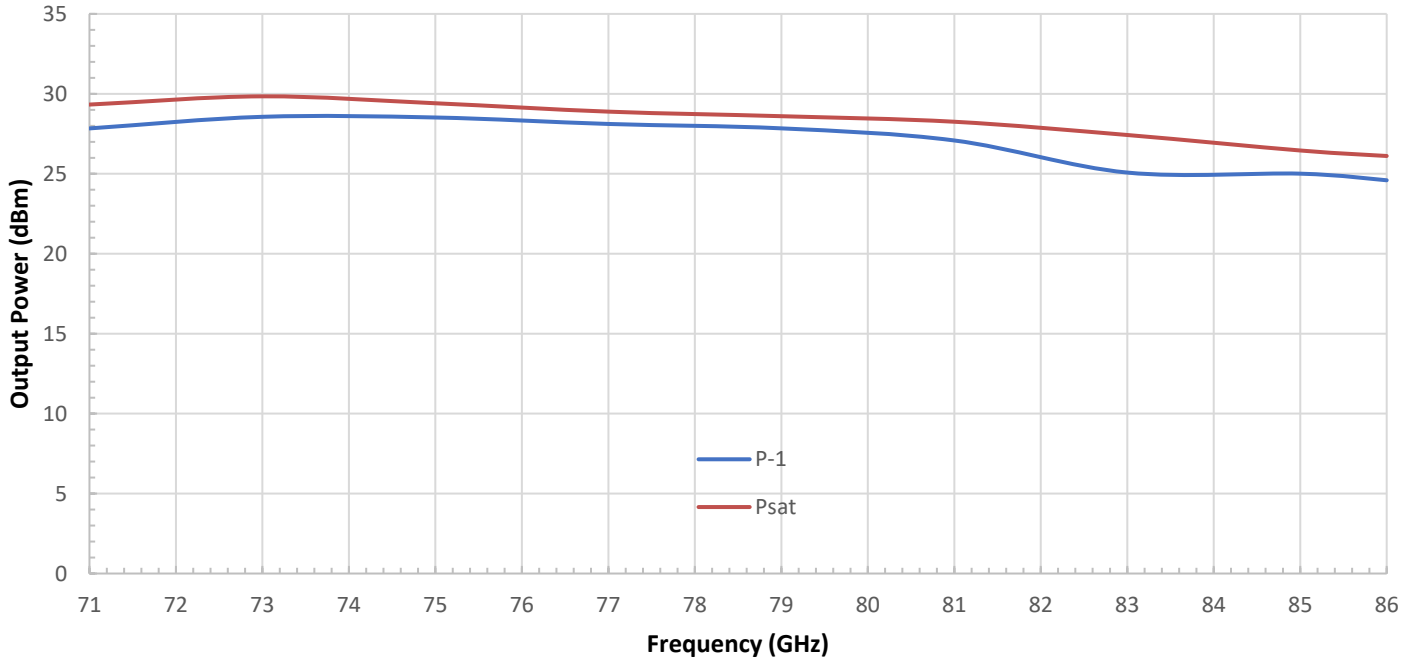
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/3000 mA

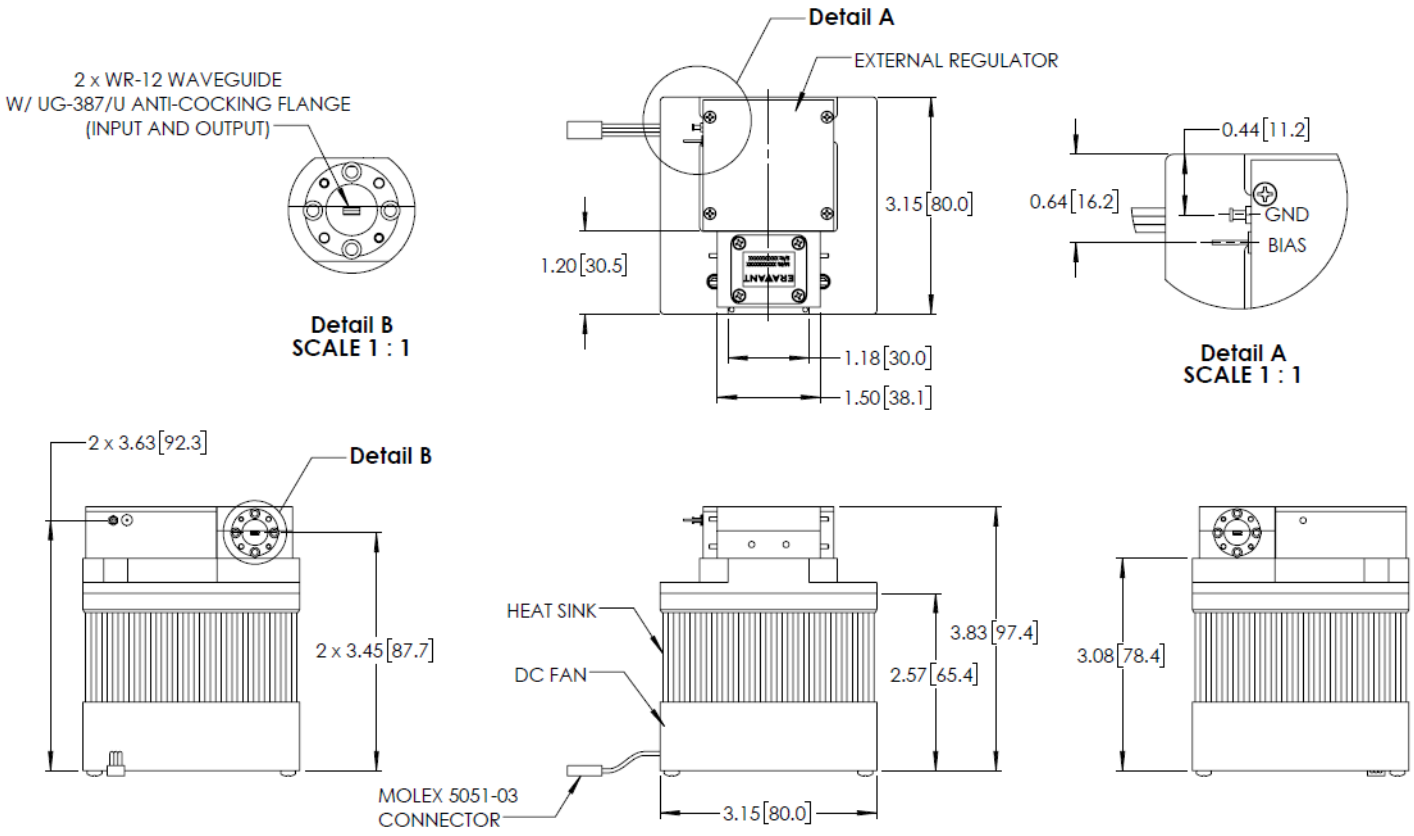


Output Power vs. Frequency

Bias: +8 V_{DC}/4000 mA



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



MOLEX - 5051-03	
WIRE	**SIGNAL**
BLACK	GND
RED	+12 VDC
YELLOW	TACH

NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Other mechanical configurations are available under different model numbers.
- Eravant 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 proper heatsink or fan if necessary.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.