SBP-8138633427-1212-EP

E-Band Power Amplifier, 81 to 86 GHz, 34 dB Gain, +27 dBm P_{sat}

SBP-8138633427-1212-EP is a E-Band GaN power amplifier with a typical small signal gain of 34 dB and a nominal P_{sat} of +27 dBm across the frequency range of 81 to 86 GHz. The DC power requirement for the amplifier is +28 V_{DC}/0.3 A. The mechanical configurations is an inline structure with WR-12 waveguides and UG-387/U anti-cocking flanges. Power amplifier module comes with heatsink and fan asssembled with the unit.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	81 GHz		86 GHz
Small Signal Gain		34 dB	
Power Gain		30 dB	
P_{sat}		+27 dBm	
P_{in}			+10 dBm
Input Return Loss		10 dB	
Output Return Loss		5 dB	
DC Supply Voltage (VDD)	+26 V_{DC}	+28 V_{DC}	+32 V_{DC}
DC Supply Current		0.3 A	
Supply Voltage to Fan		+12 V_{DC}/0.2 A	
Specification Temperature		+25 ˚C	
Operating Temperature	0˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input	WR-12 Waveguide with UG-387/U Anti-Coking Flange
Output	WR-12 Waveguide with UG-387/U Anti-Coking Flange
Power Supply	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Size	3.15” (L) X 2.99” (W) X 3.69” (H)
Outline	BP-HE-H1

ECCN

3A001.b.4

FEATURES

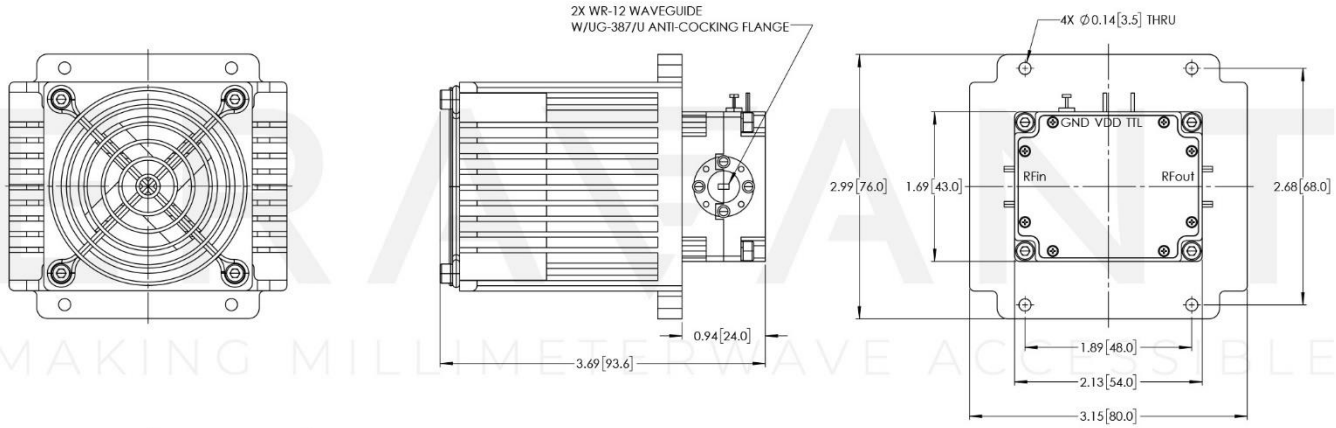
- Class AB GaN Technique
- Broadband Performance
- High Gain
- High Output Power
- Forced Air Cooling
- In-line Port Configuration

APPLICATIONS

- Radar Systems
- Communication Systems
- Test Equipment

SUPPLEMENTAL DETAILS

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



WIRE COLOR	FUNCTIONS
RED	+12V
BLACK	GND
YELLOW	TACH SIGNAL (OPTIONAL)
BLUE	PWM (OPTIONAL)

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.
- 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.
- Do not block the air inlets and outlets.
- The device is static sensitive. Always follow ESD rules when working with the device.
- Do not plug or unplug any connectors when amplifier is activated. All connectors must be connected/disconnected when amplifier is off.
- The case temperature of the device shall never exceed +50 ˚C. Use proper heatsink or fan if necessary
- Any foreign objects in the waveguide will degrade performance and/or damage the device.