

# 71 to 76 GHz, Power Amplifier, 39 dB Gain, +33 dBm Psat

**SBP-7137633933-1212-C1-HR** is a E-Band, GaAs power amplifier with a typical small signal gain of 39 dB and a nominal  $P_{sat}$  of +33 dBm across the frequency range of 71 to 76 GHz. The DC power requirement for the amplifier is +6  $V_{DC}$ / 5 A. The mechanical configuration offers an in-line structure with WR-12 waveguides and UG-387/U-M anti-cocking flanges. A heat sink is included for cooling.



# **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency Range	71 GHz		76 GHz
Small Signal Gain		39 dB	
P <sub>1dB</sub>		+31 dBm	
Psat		+33 dBm	
Input Return Loss		10 dB	
Output Return Loss		12 dB	
DC Voltage		+6 V <sub>DC</sub>	
DC Supply Current (Quiescent)		3.5 A	
DC Supply Current (Saturated)		5.0 A	
Fan DC Voltage		+12 V <sub>DC</sub>	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

## **Mechanical Specifications:**

Item	Specification
Input/Output Ports	WR-12 Rectangular Waveguide with UG-387/U-M Anti-Cocking Flange
Bias	Solder Pin
Case Material	Copper
Finish	Gold Plated, Black Anodize
Fan Connector	Molex 5051-03
Degree of Protection	IP40 MILLINETERMA
Weight	28 oz
Size	3.15" (L) X 3.15" (W) X 3.73" (H)
Outline	BP-SE-2-H95-A

#### **ECCN**

3A001.b.4

#### **FEATURES**

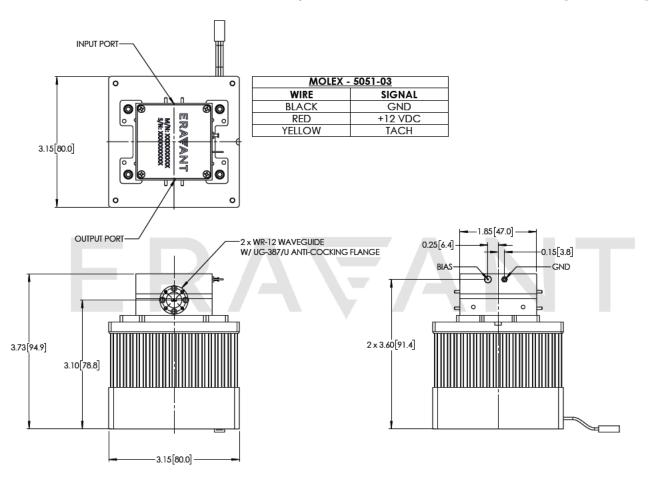
- · Forced Air Cooling
- In-line Port Configuration
- High Power Output
- High Linearity

## **APPLICATIONS**

- Communications Systems
- Test Equipment
- Radar Systems

### **SUPPLEMENTAL DETAILS**

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



## NOTE:

- The product presented in this datasheet is at a preliminary design stage. Final electrical and mechanical specifications may differ than what is presented.
- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- · Other mechanical configurations with other frequency bands 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 +70°C.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.