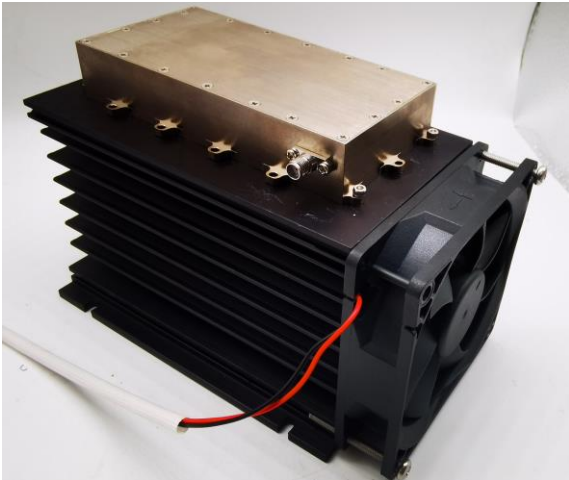


2-18GHz High Power Amplifier

Gain=40dB, Pout=+39dBm

2022-6-14



-HF Option with heatsink and Fan

Product Overview

AT-HPA-0218-4039GN is GaN Based high gain power amplifier with +39dBm output power in the frequency of 2-18GHz. The DC power requirement is +30V/2.5A at Psat. The module is with SMA connector.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response. There is no heatsink and fan in default. Option with suffix “-HF” is part number with heatsink and Fan, -BT option is for bench-top system amplifier.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 2-18GHz
- ✓ Psat:+39dBm
- ✓ Small signal gain: 40dB
- ✓ Single Power Supply

Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

| Parameter | Min | Typical | Max |
|-------------------|----------|---------|------|
| Frequency | | 2-18GHz | |
| Gain | 37dB | 40dB | |
| Psat | +37.5dBm | +39dBm | |
| Drain Supply | | +30V | +32V |
| Idd NO RF | | 2A | |
| IDD Psat | | 2.5A | 3A |
| Input Return Loss | | -10dB | |
| Spec Temp | | 25C | |





AT-HPA-0218-4039GN

2-18GHz High Power Amplifier

Mechanical Information

| Item | Description |
|--------------------------------|---------------|
| Input Port | SMA Female |
| Output Port | SMA Female |
| Case Material | Aluminum |
| Finish | Nickel Plated |
| Weight (With Heatsink and Fan) | TBD |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| Drain Supply | +32V |
| RF Input Power | +16 dBm |
| Operating Temperature | -20 to +70C |
| Storage Temperature | -65 to +150C |

Very Important:

1. MUST Apply to heatsink and Fan during operation, or the amplifier will be damaged due to the high power consumption;
2. Do NOT leave Output OPEN with Bias and input power. Connect to 50 Ohms system during operation.
3. Take care that Vdd never touch Case/GND when Power ON, or the amplifier will be damaged.

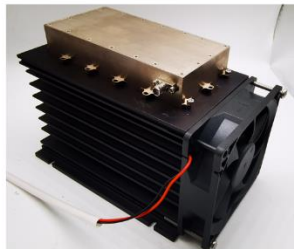


Part Number Selection

| Item | Description |
|-------------------------------|---|
| AT-HPA-0218-4039GN | In defaulted without heatsink and Fan. Heatsink and Fan required during operation. |
| AT-HPA-0218-4039GN- HF | Including Heatsink and Fan. Fan bias is same with Vdd normally. |
| AT- BT HPA-0218-4039GN | Bench-top System Amplifier, 220V Power Supply Please note gain will be 1-2db lower than standard module, while Pout will keep the same. Please contact with us for more information. |



In default
without heatsink



-HF Option
With Heatsink and Fan



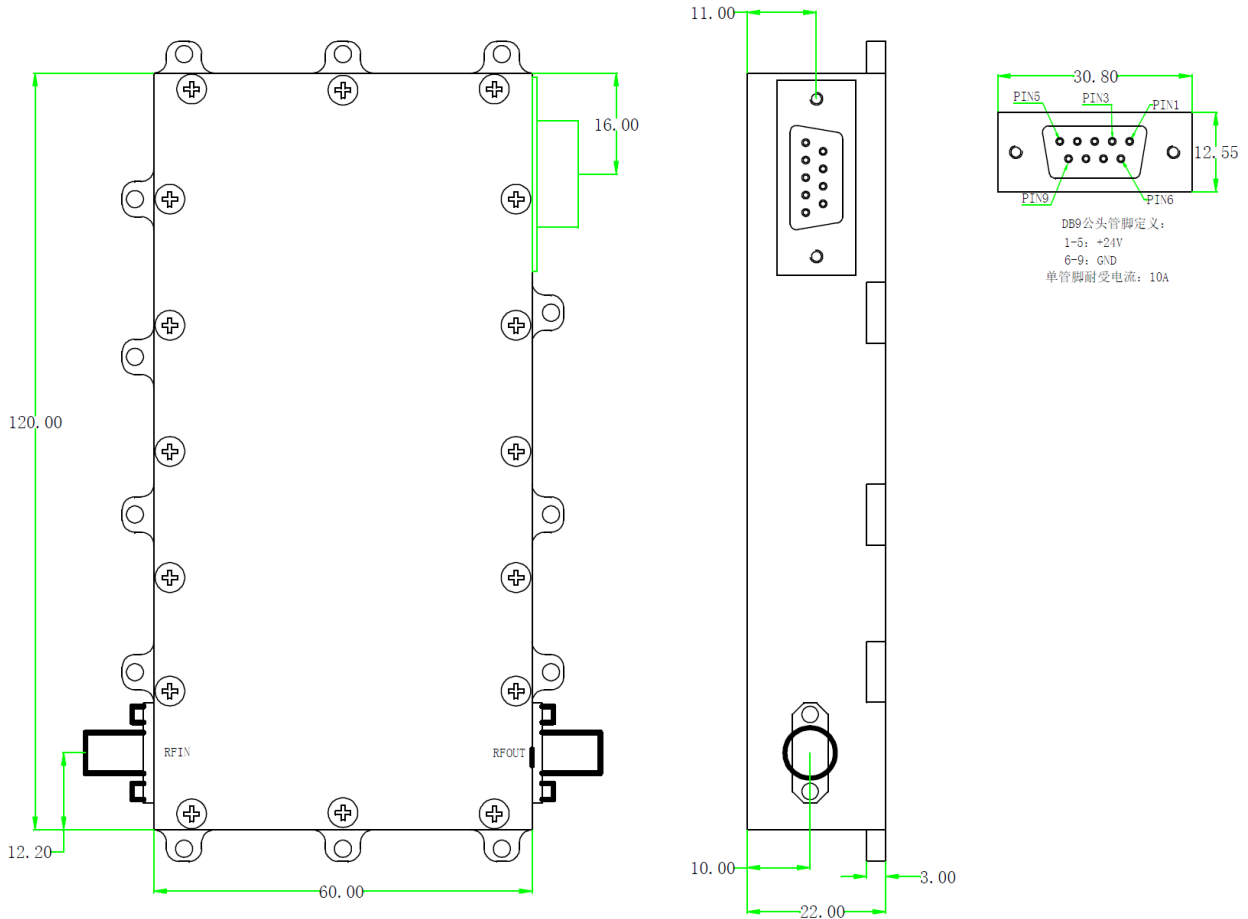
-BT Option
Bench-top System Amplifier

Test Data (25C)

Please note that test curves will vary slightly from unit to unit.
Test data to be added.



Standard Module Outline Without Heatsink: (mm)



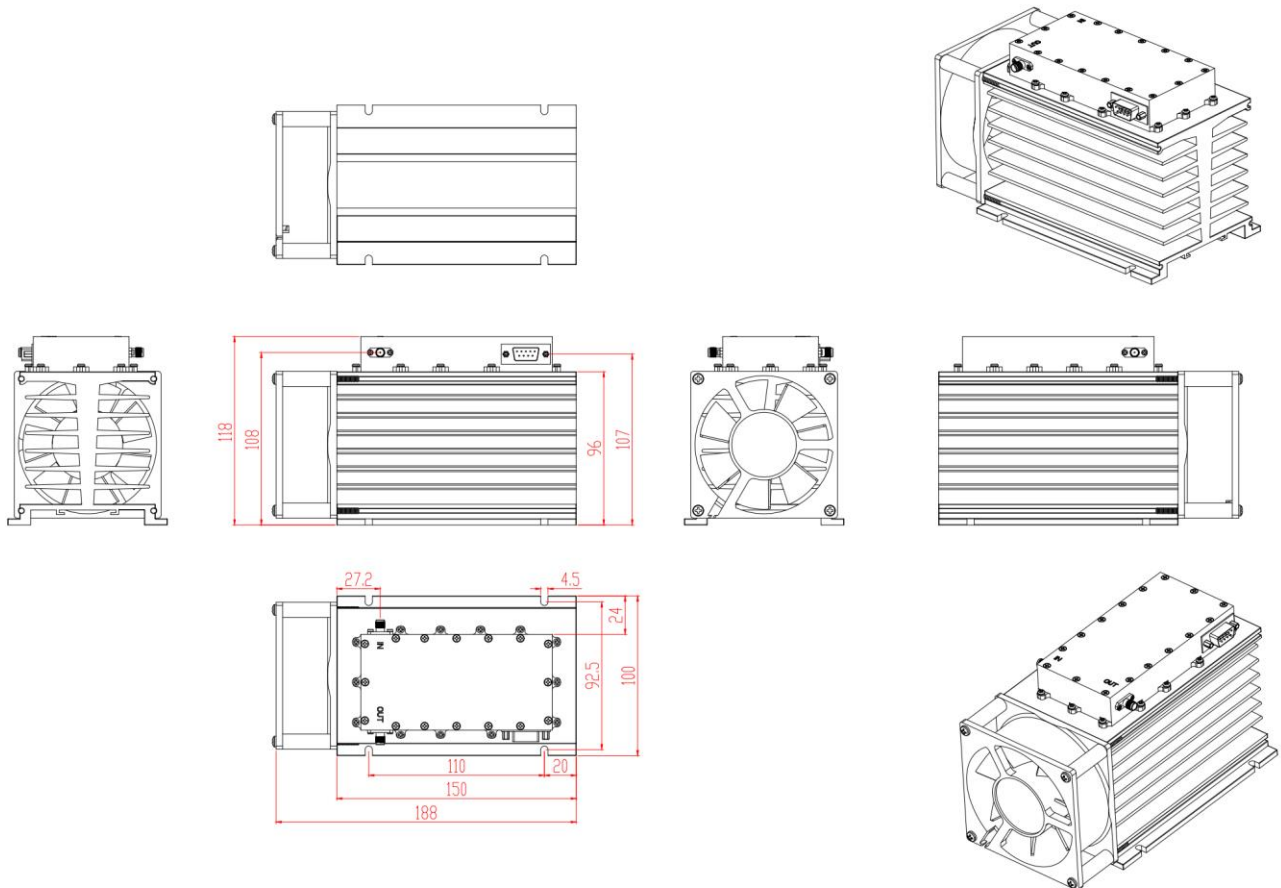
PA Module without heatsink and Fan

Heatsink and Fan Required during Operation



-HF Option:

Module With Heatsink and Fan: (mm)



Customers can remove the heatsink and Fan if using their own heatsink.



-BT Option,

Bench-top outline System Amplifier: (mm)

