

2-4GHz High Power Amplifier

2022-8-1

Gain=45dB, Pout=+44dBm



Product Overview

AT-HPA-0206-4544XGN is GaN Based high gain power amplifier with +44dBm output power in the frequency of 2-4GHz. The DC power requirement is +30V/4.5A 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.

-HF Option with heatsink and Fan

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 2-4GHz
- ✓ Psat:+44dBm
- ✓ Small signal gain: 45dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		2-4GHz	
Gain	42dB	45dB	
Psat	+43dBm	+44dBm	
Drain Supply		+30V	+32V
Idd NO RF		3.5A	
IDD Psat		4.5A	5.5A
Input Return Loss		-10dB	
Output Return Loss		-5dB	
Spec Temp		25C	





AT-HPA-0204-4544XGN

2-4GHz High Power Amplifier

Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Aluminum
Finish	Nickel Plated
Weight (Without Heatsink and Fan)	TBD
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+32V
RF Input Power	+20 dBm
Operating Temperature	0 to +50C
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.





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Part Number Selection

Item	Description
AT-HPA-0204-4544XGN	In defaulted without heatsink and Fan. Heatsink and Fan required during operation.
AT-HPA-0204-4544XGN-HF	Including Heatsink and Fan. Fan bias is same with Vdd normally.
AT-BTHPA-0204-4544XGN	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



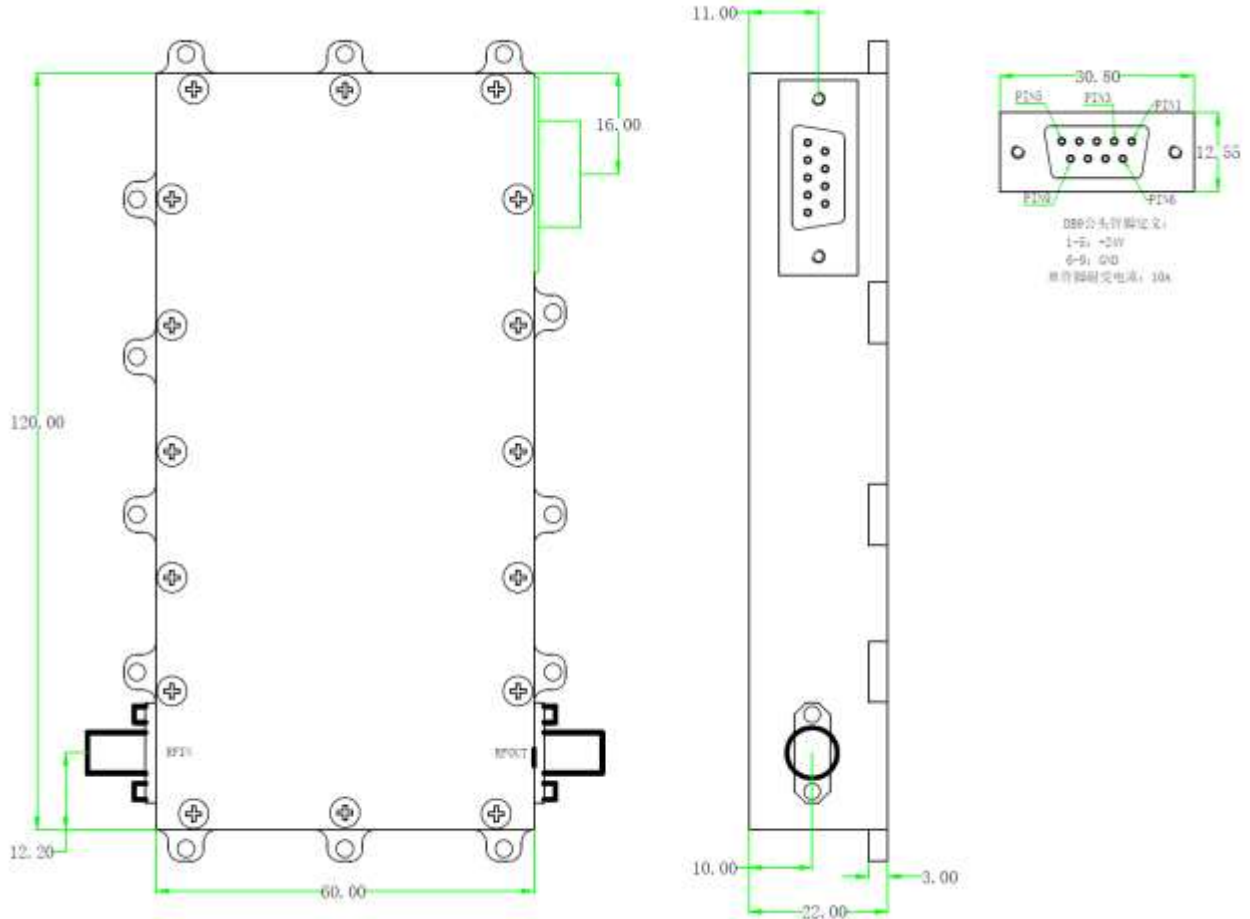
-BT Option
Bench-top System Amplifier

Test Data (25C)

Please note that test curves will vary slightly from unit to unit.
TO BE ADDED.



Standard Module Outline Without Heatsink: (mm)



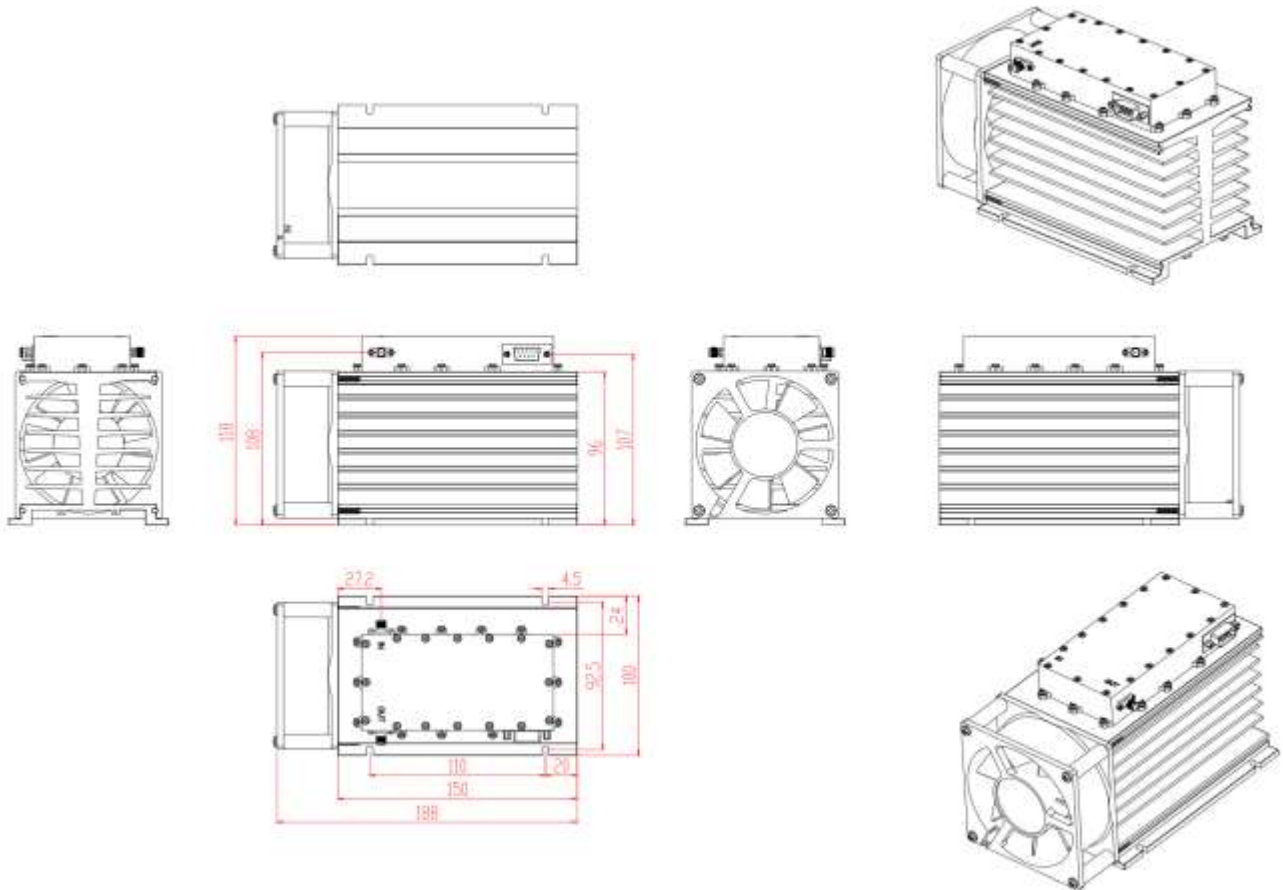
PA Module without heatsink and Fan

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.





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-BT Option,

Bench-top outline System Amplifier: (mm)

