

# 2-6GHz GaAs High Power Amplifier



### Product Overview

AT-HPA-0206-3836N is GaAs Based high gain power amplifier with +36dBm output power in the frequency of 2-6GHz. The DC power requirement is +10V/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.

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

### Advantages

- ✓ Frequency: 2-6GHz
- ✓ Psat:+36dBm
- ✓ Small signal gain: 38dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		2-6GHz	
Gain	35dB	38dB	
P1dB	+34dBm	+35dBm	
Psat	+35dBm	+36dBm	
Drain Supply		+10V	+12V
Idd NO RF		2.25A	
IDD PSAT		2.5A	3.2A
Input Return Loss		-15dB	
Output Return Loss		-8dB	
Spec Temp		25C	



## Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink and Fan)	380g
Size:	See outline

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
RF Input Power	+20 dBm
Operating Temperature	-40 to +70C
Storage Temperature	-45 to +85C

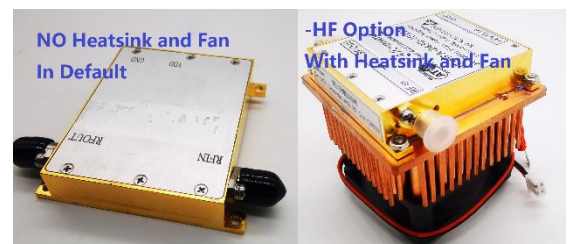
### Very Important:

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.



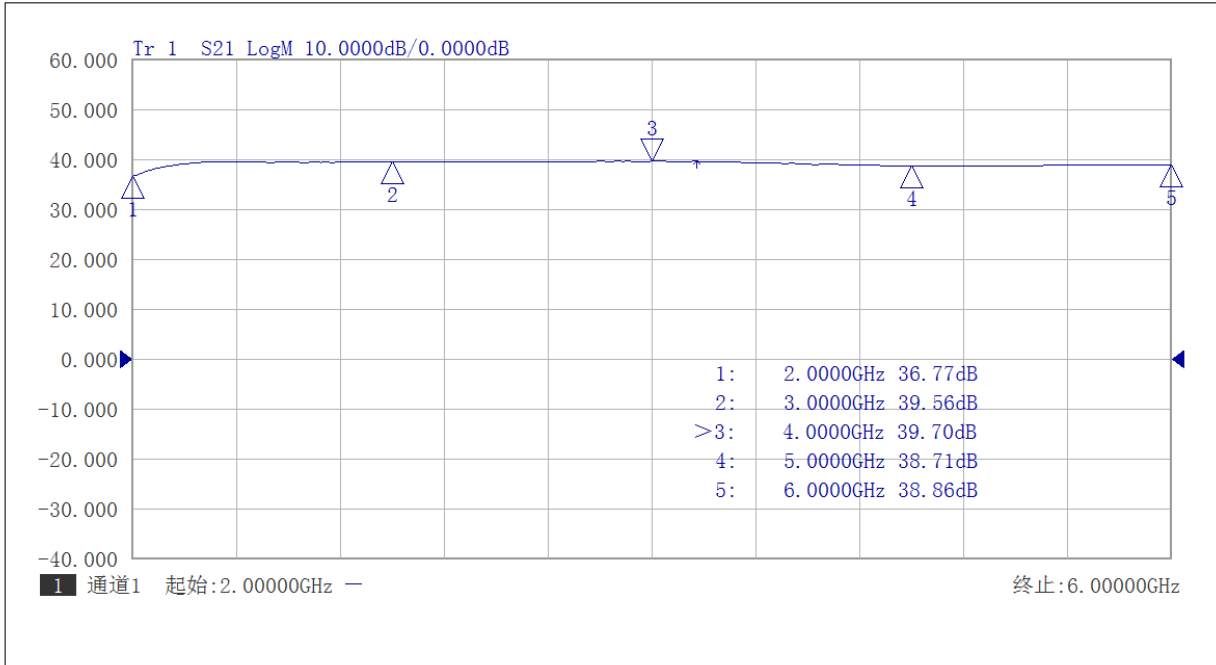
## Part Number Selection

Item	Description
AT-HPA-0206-3826N	In defaulted without heatsink and Fan. Heatsink and Fan required during operation.
AT-HPA-0206-3826N-HF	Including Heatsink and Fan. Fan bias is connected with PA Module's Vdd supply

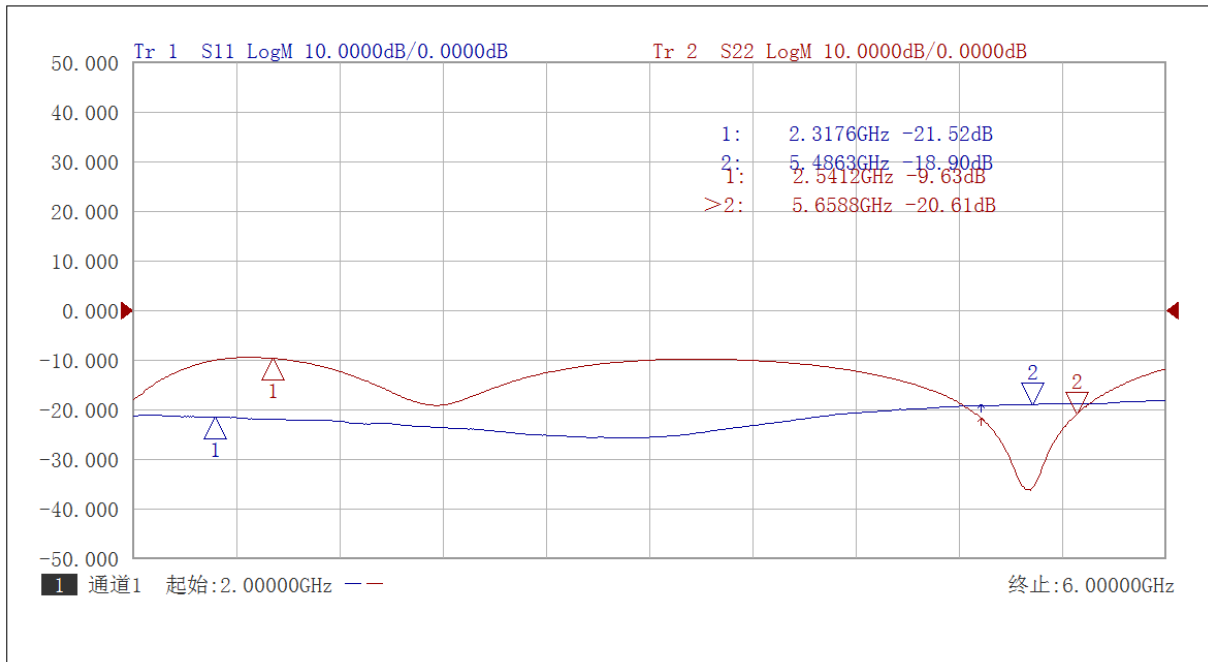


### Test Data (25C)

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



Gain vs Frequency



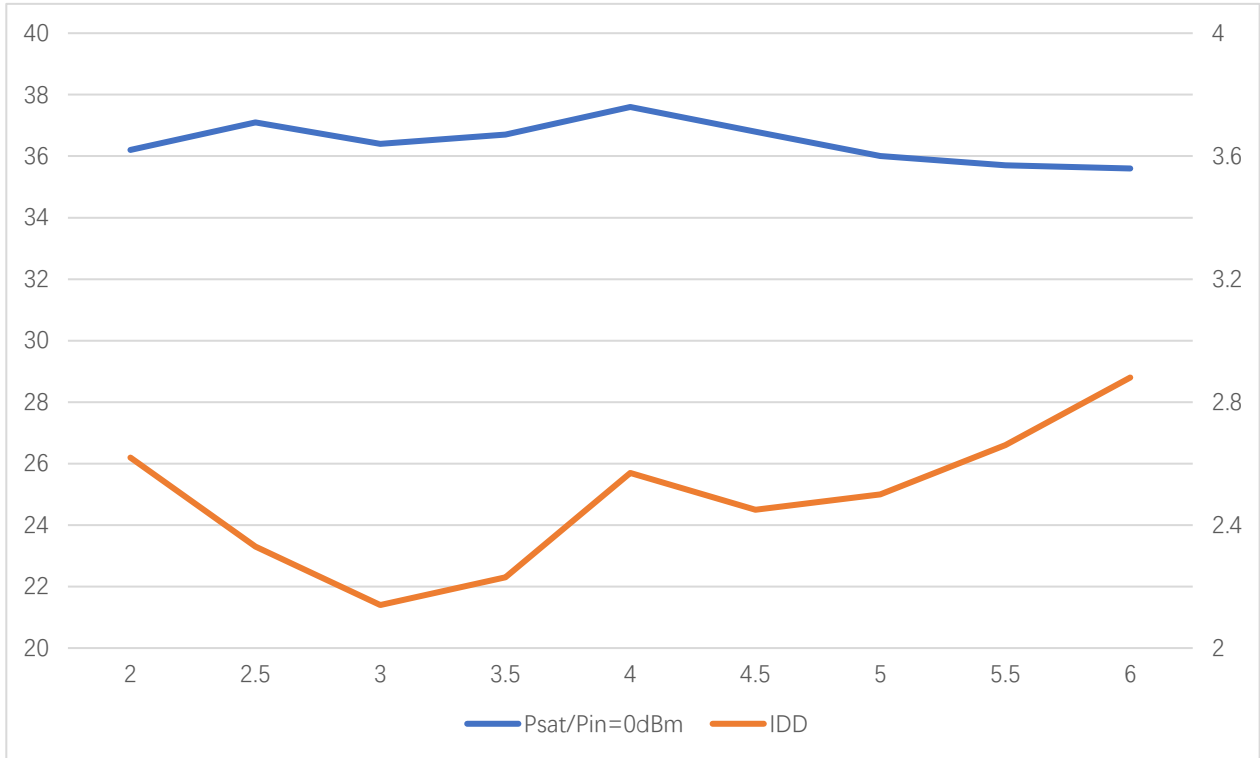
Return Loss vs Frequency



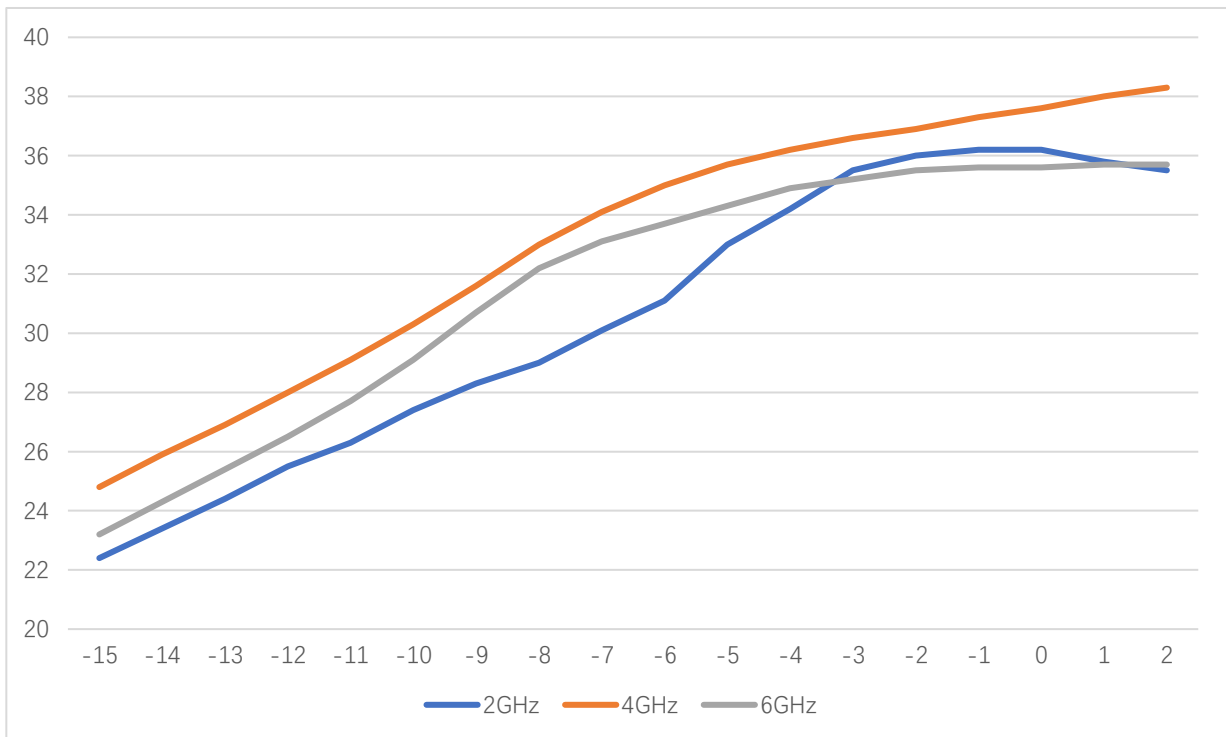


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Psat and IDD vs Frequency



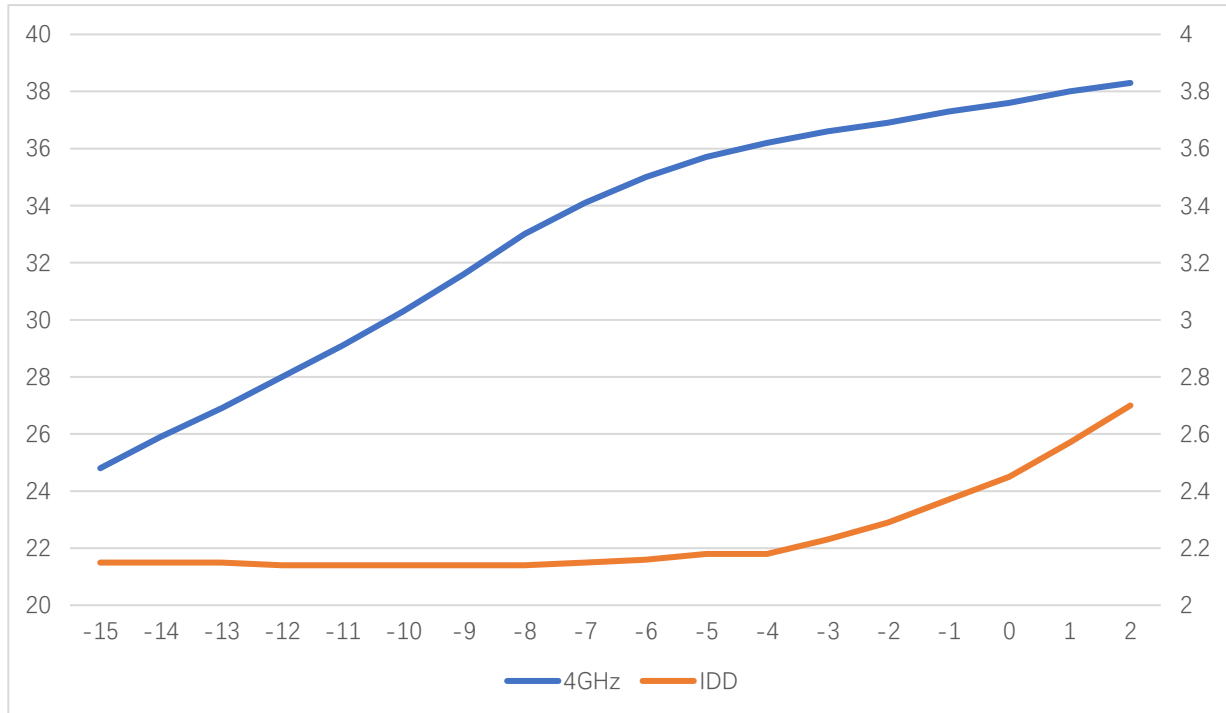
Pout vs Pin at 2/4/6GHz





# AT-HPA-0206-3836N

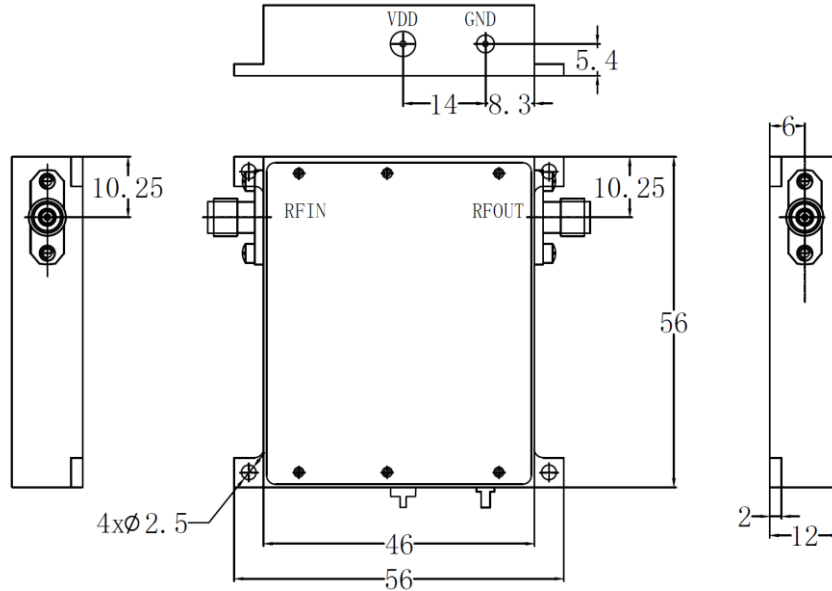
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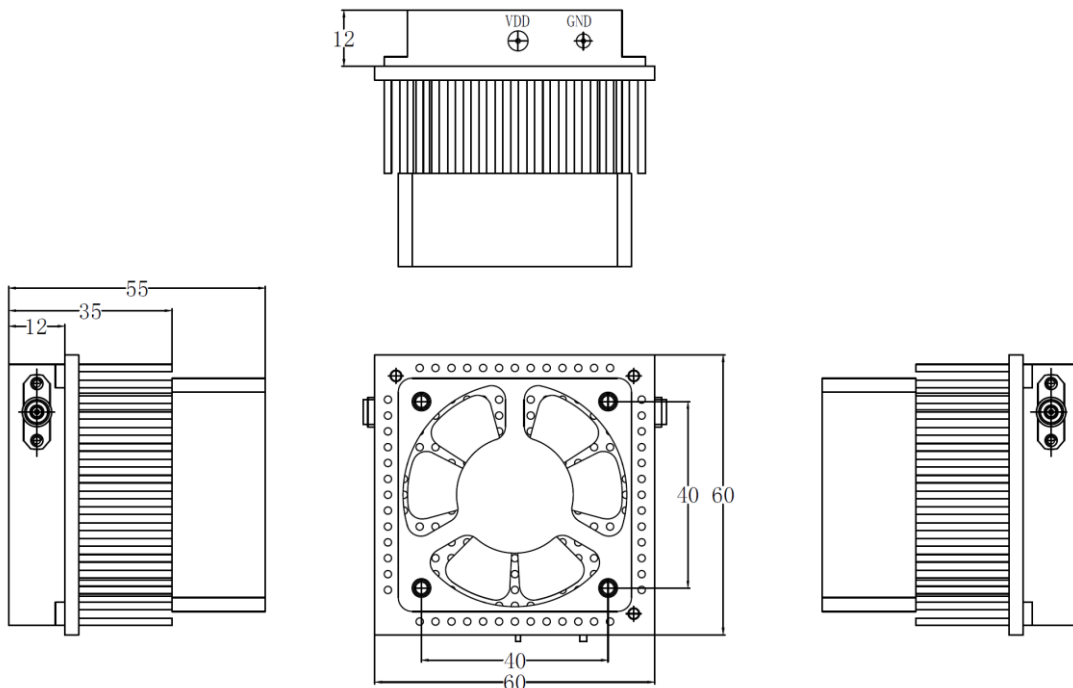
Pout and Idd vs Input Power at 4GHz



### Dimension: (mm)



Outline without Heatsink and Fan, Heat Sink Required during Operation



"-HF" option with Heatsink and Fan

