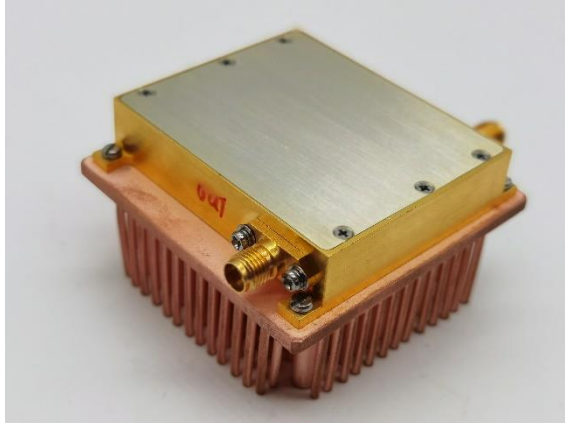


## 25-31GHz High Power Amplifier

Gain=40Db, Pout=+35dBm



### Product Overview

AT-HPA-2531-4035N is GaAs Based high gain power amplifier with +35dBm output power in the frequency of 25-31GHz. The DC power requirement is +8V/3.1A at Psat. The module is with 2.92mm 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: 25-31GHz
- ✓ Psat:+35dBm
- ✓ 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		25-31GHz	
Gain	35dB	40dB	
P1dB		+33dBm	
Psat	+33dBm	+35dBm	
Drain Supply		+8V	+9V
Idd NO RF		2.8A	
IDD Psat		3.1A	3.8A
Input Return Loss		-12dB	
Output Return Loss		-8dB	
Spec Temp		25C	



### Mechanical Information

Item	Description
Input Port	2.92mm Female
Output Port	2.92mm Female
Case Material	Copper
Finish	Gold Plated
Weight (With Heatsink and Fan)	400g
Size:	56x56x12mm

### Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+20 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

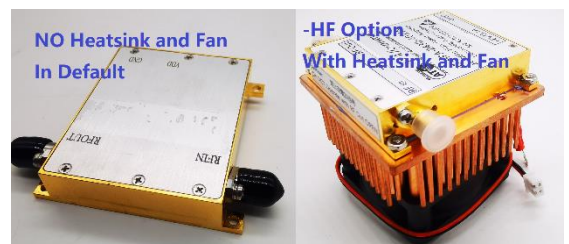
### Very Important:

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.



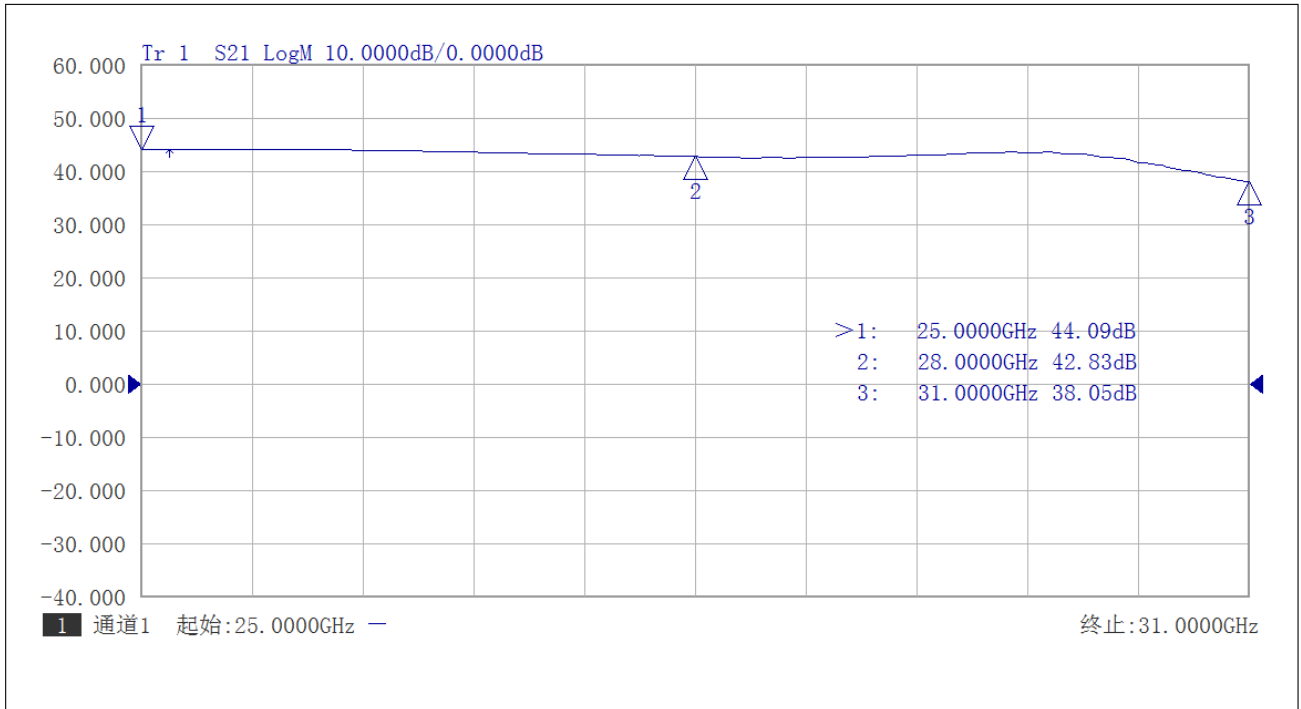
### Part Number Selection

Item	Description
AT-HPA-2227-3734N	In defaulted without heatsink and Fan. Heatsink and Fan required during operation.
AT-HPA-2227-3734N - HF	Including Heatsink and Fan. Fan bias is connected with PA Module's Vdd supply

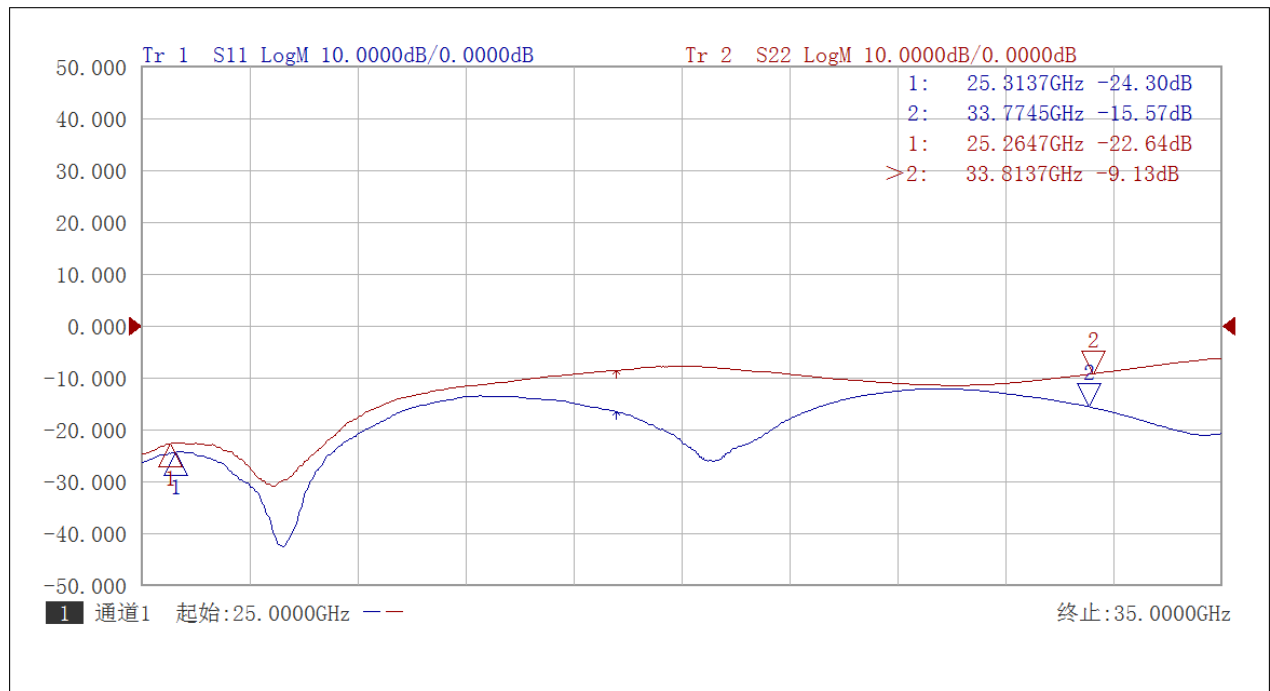


### Test Data (25C)

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

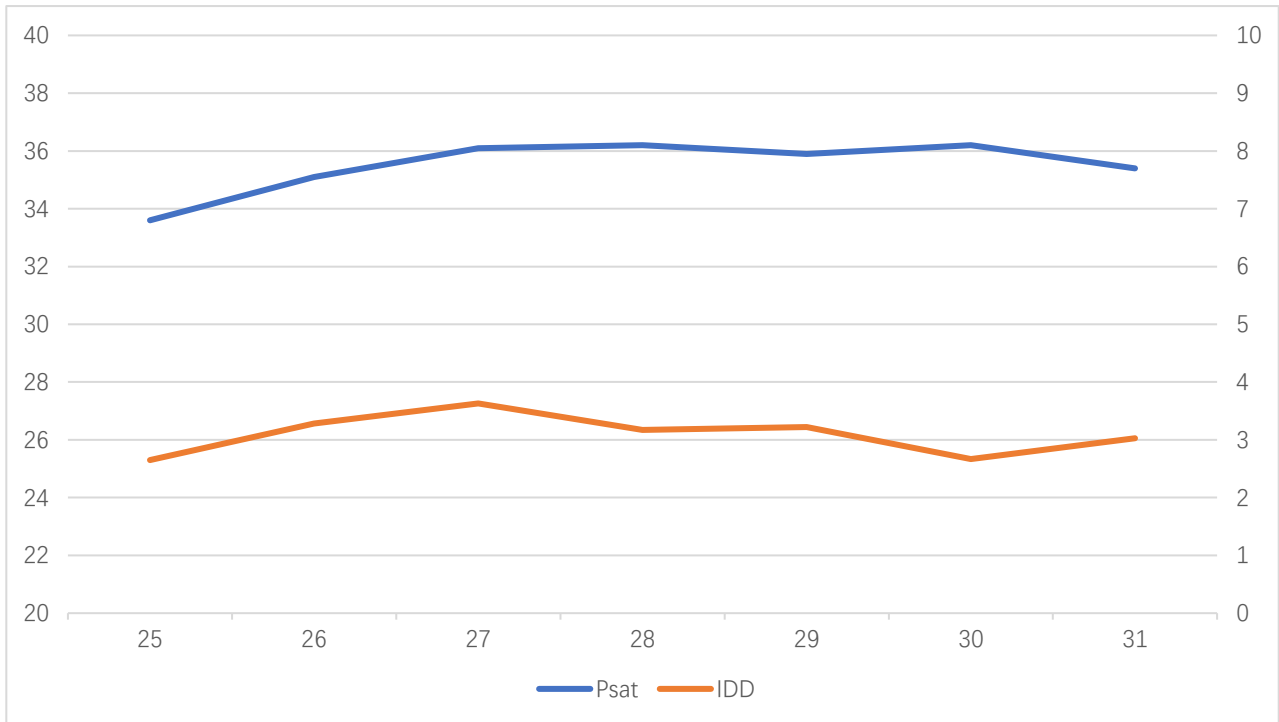


Gain vs Frequency

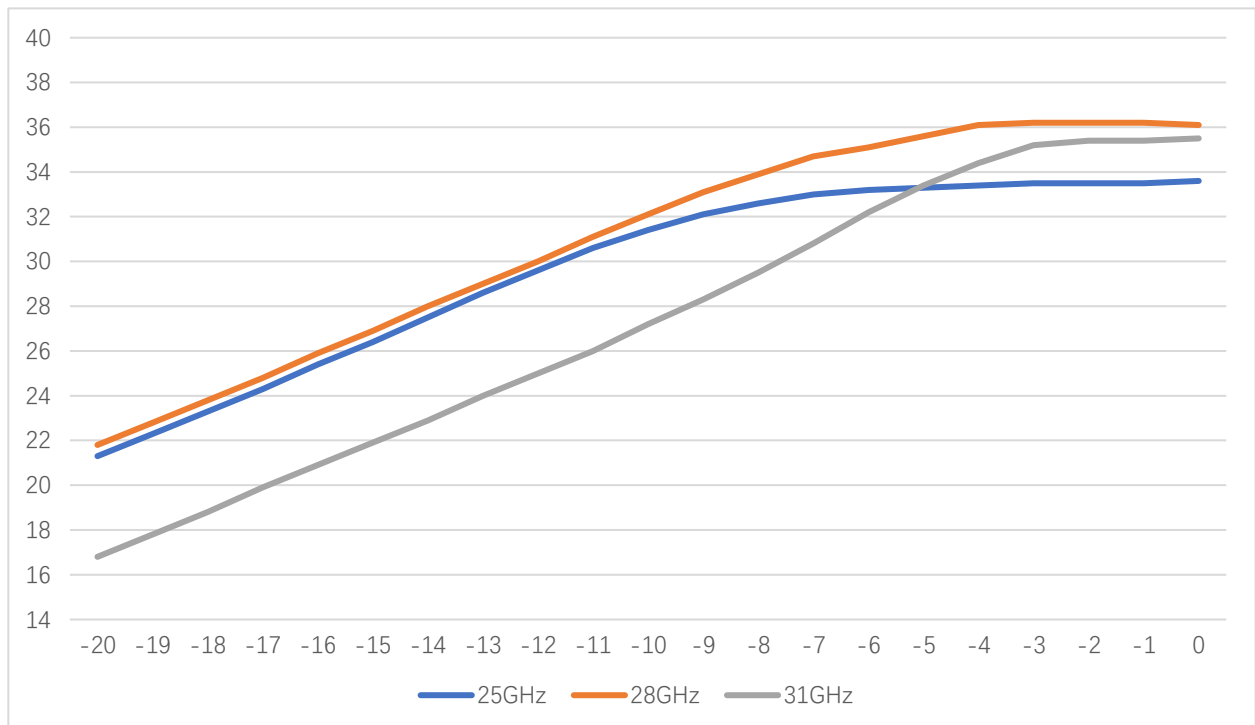


Return Loss vs Frequency





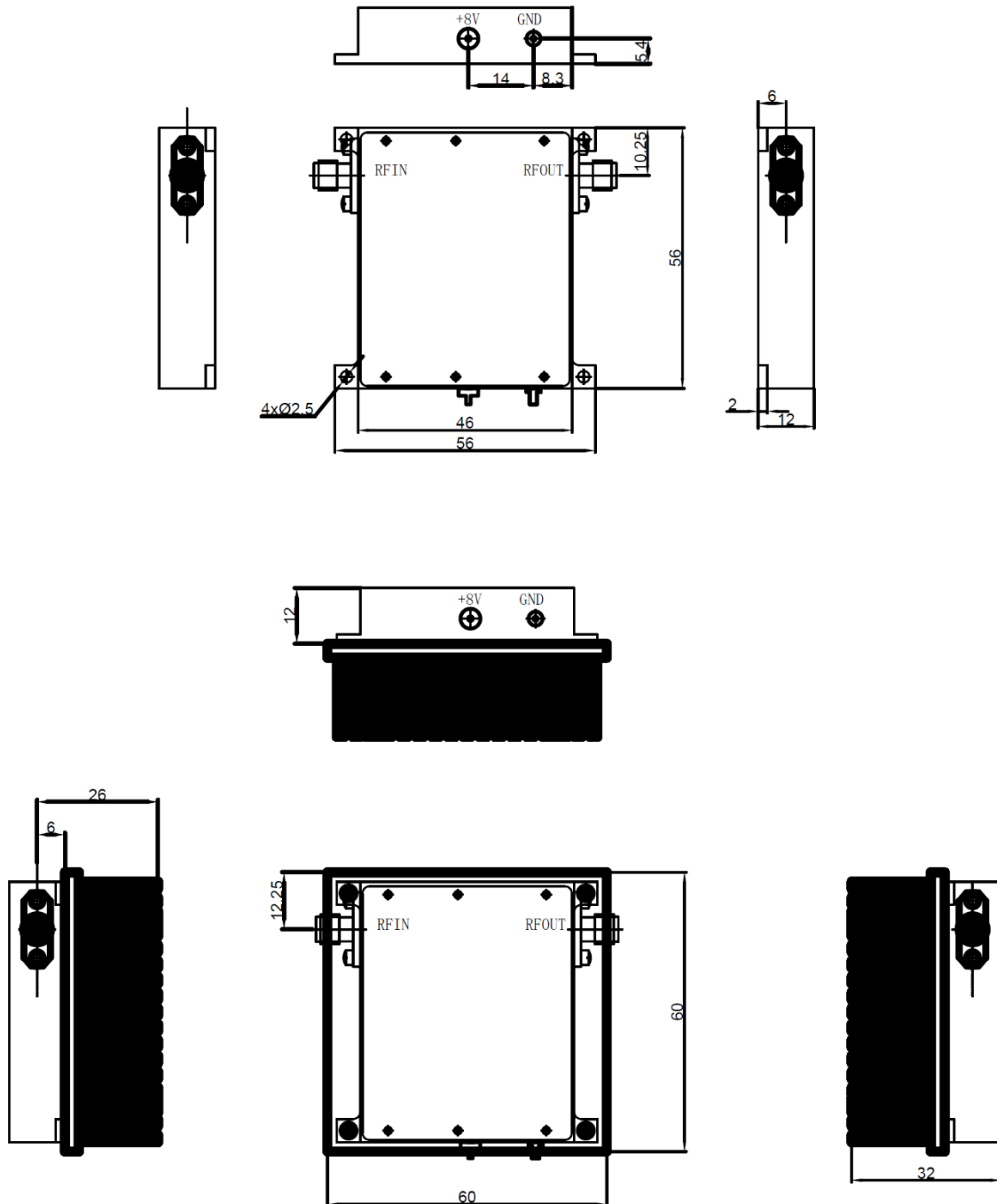
Psat and IDD vs Frequency



Pout vs Pin at 25/28/31GHz



Dimension: (mm)



Heat Sink Required during Operation

