

## 26-40GHz High Power Amplifier

Gain=33dB, Pout=+34dBm



### Product Overview

AT-HPA-2640-3334N is GaAs Based high gain power amplifier with +34dBm output power in the frequency of 26-40GHz. The DC power requirement is +8V/3.6A 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: 26-40GHz
- ✓ Psat:+34dBm
- ✓ Small signal gain: 33dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		26-40GHz	
Gain	30dB	33dB	
P1dB	+31dBm	+32dBm	
Psat	+32.5dBm	+34dBm	
Drain Supply	7.5V	+8V	+9V
Idq NO RF		2.3A	
IDD Psat		3.8A	
Input Return Loss		-10dB	
Output Return Loss		-5dB	
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:	See outline

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+20 dBm
Operating Temperature	-20 to +55C
Storage Temperature	-65 to +150C

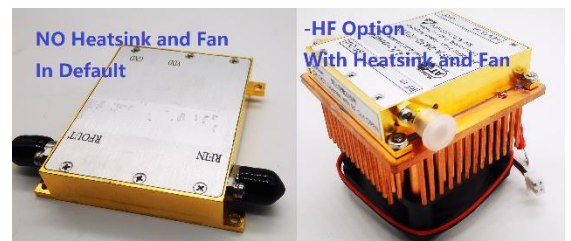
### Very Important:

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

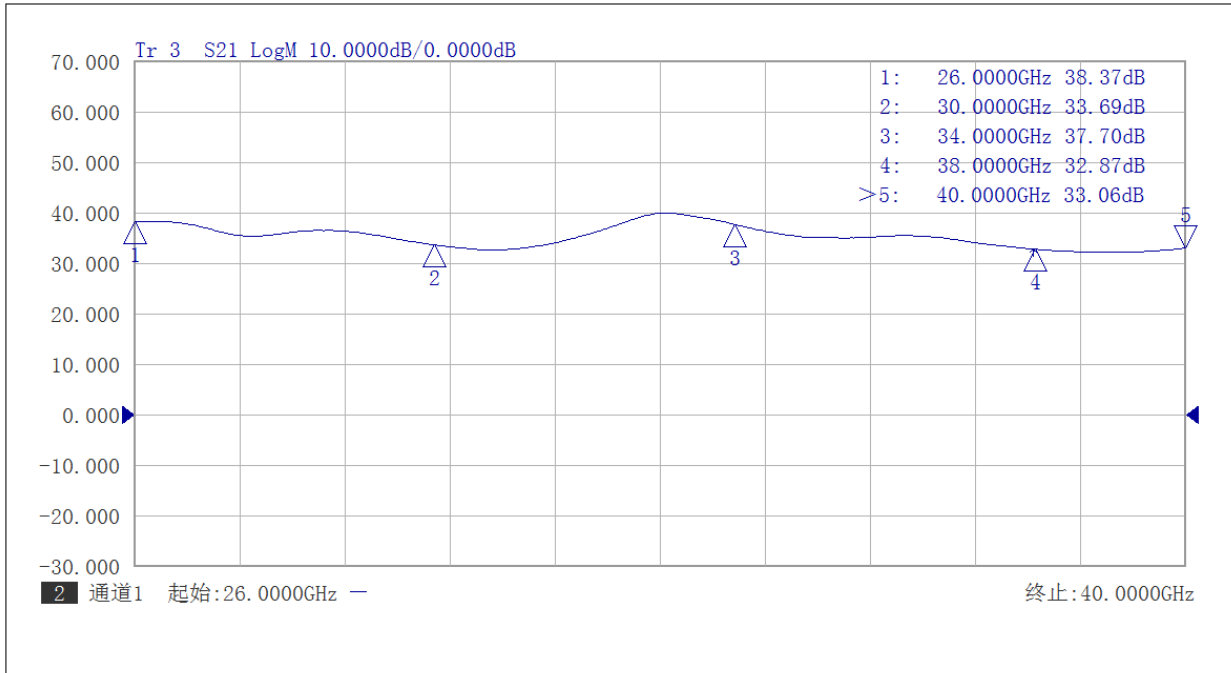
Item	Description
AT-HPA-2227-3734N	In defaulted without heatsink and Fan. Heatsink and Fan required during operation.
AT-HPA-2227-3734N -HF	Including Heatsink and Fan. Fan bias is connected with PA Module's Vdd supply



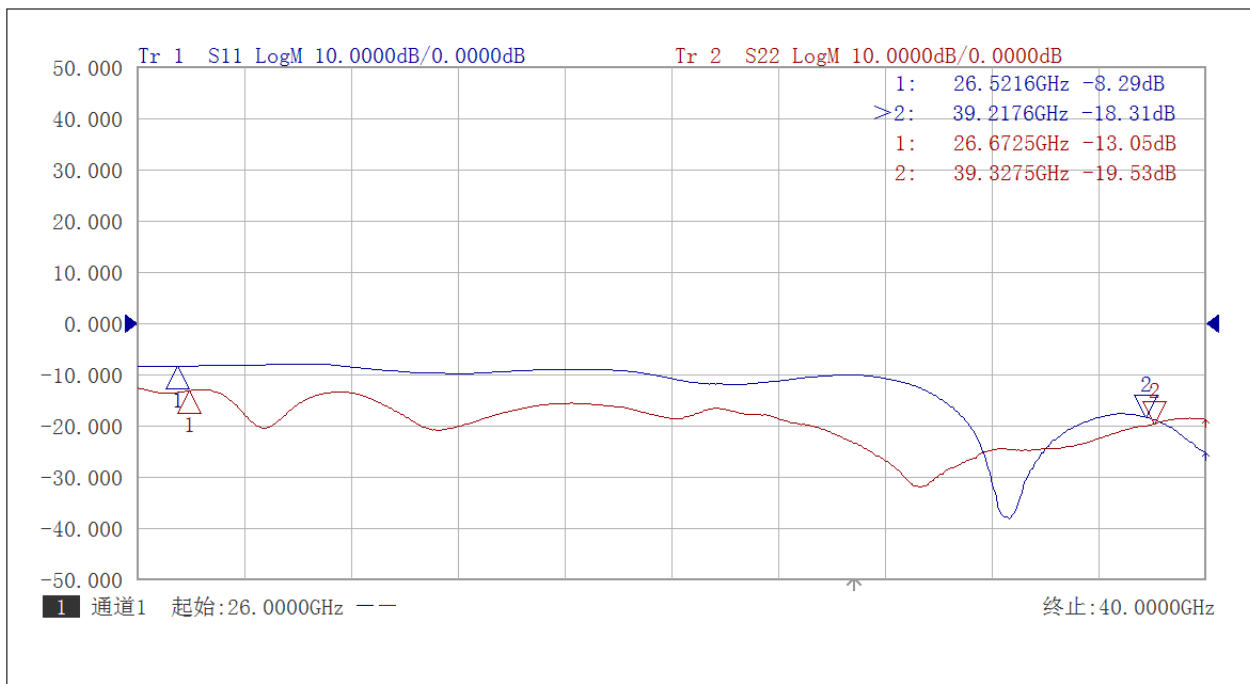
### Test Data (25C)

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

Vdd=+8V, Idd=2.1A NO RF, IDD=3.6A at Psat, 25C



Small Signal Gain vs Frequency



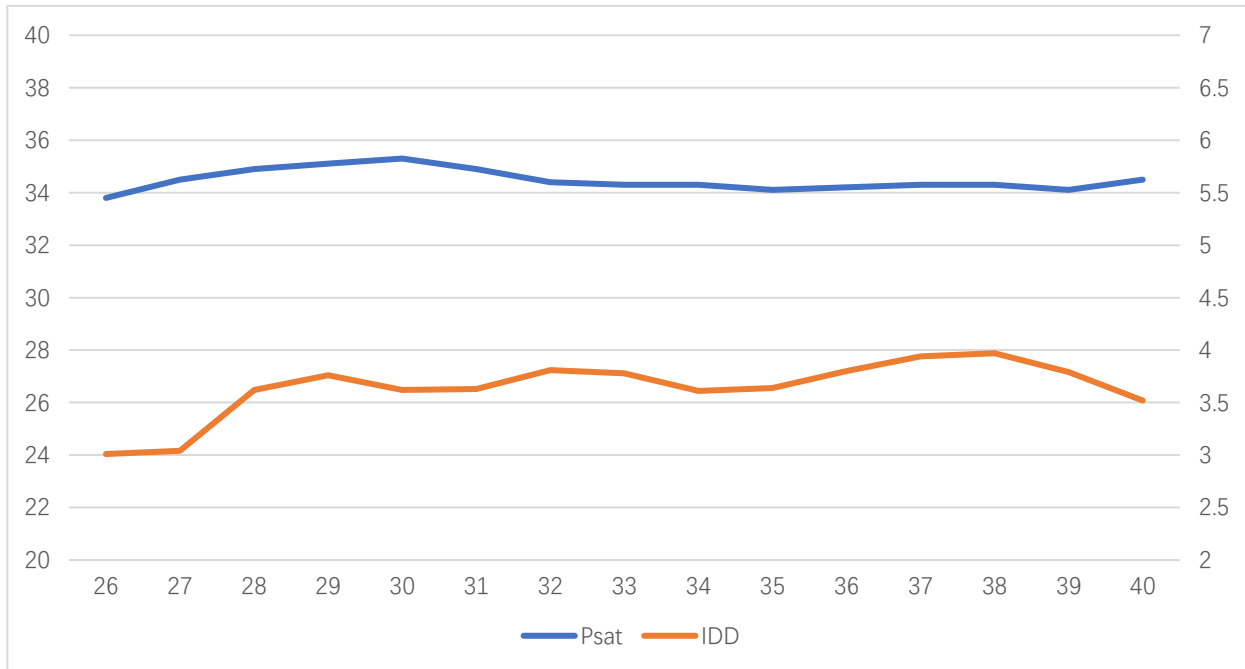
Return Loss vs Frequency



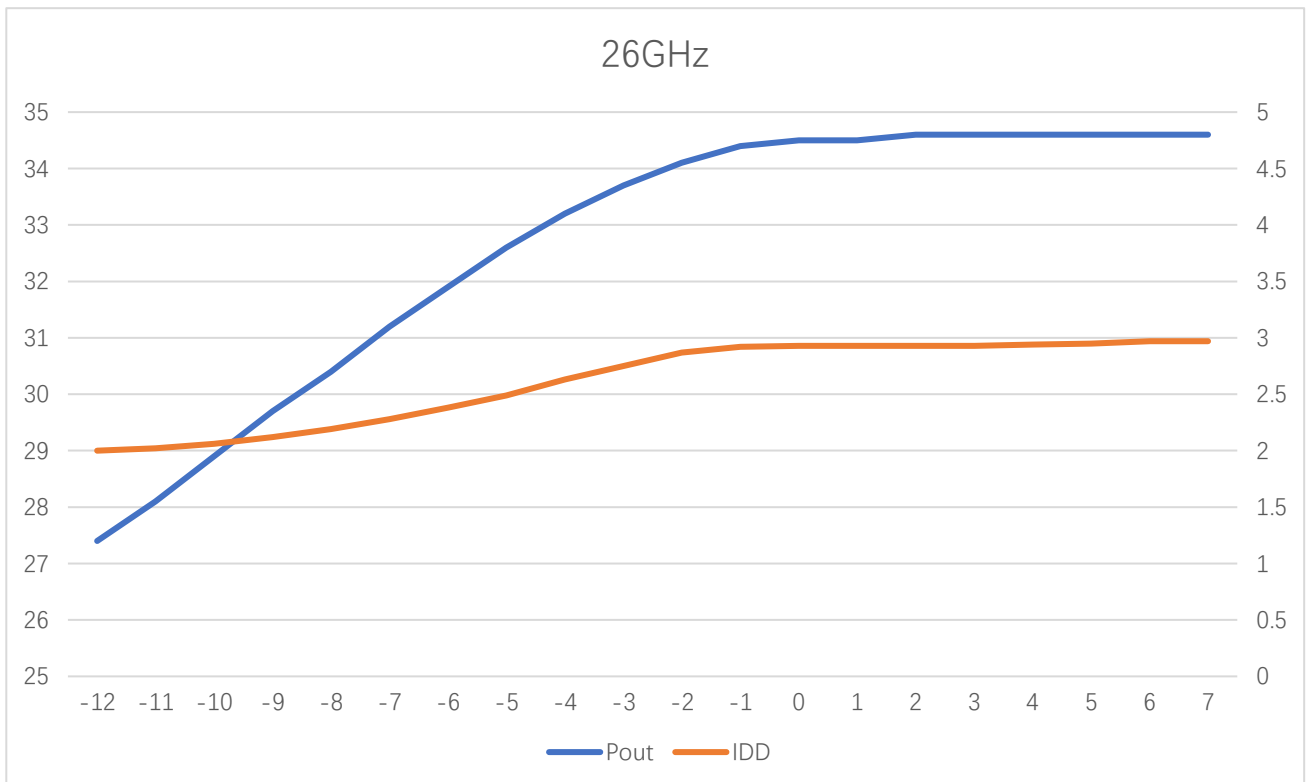


# AT-HPA-2640-3334N

26-40GHz High Power Amplifier

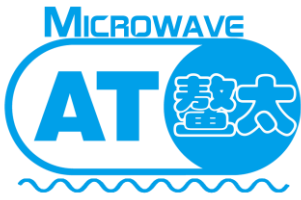


Psat and IDD vs Frequency



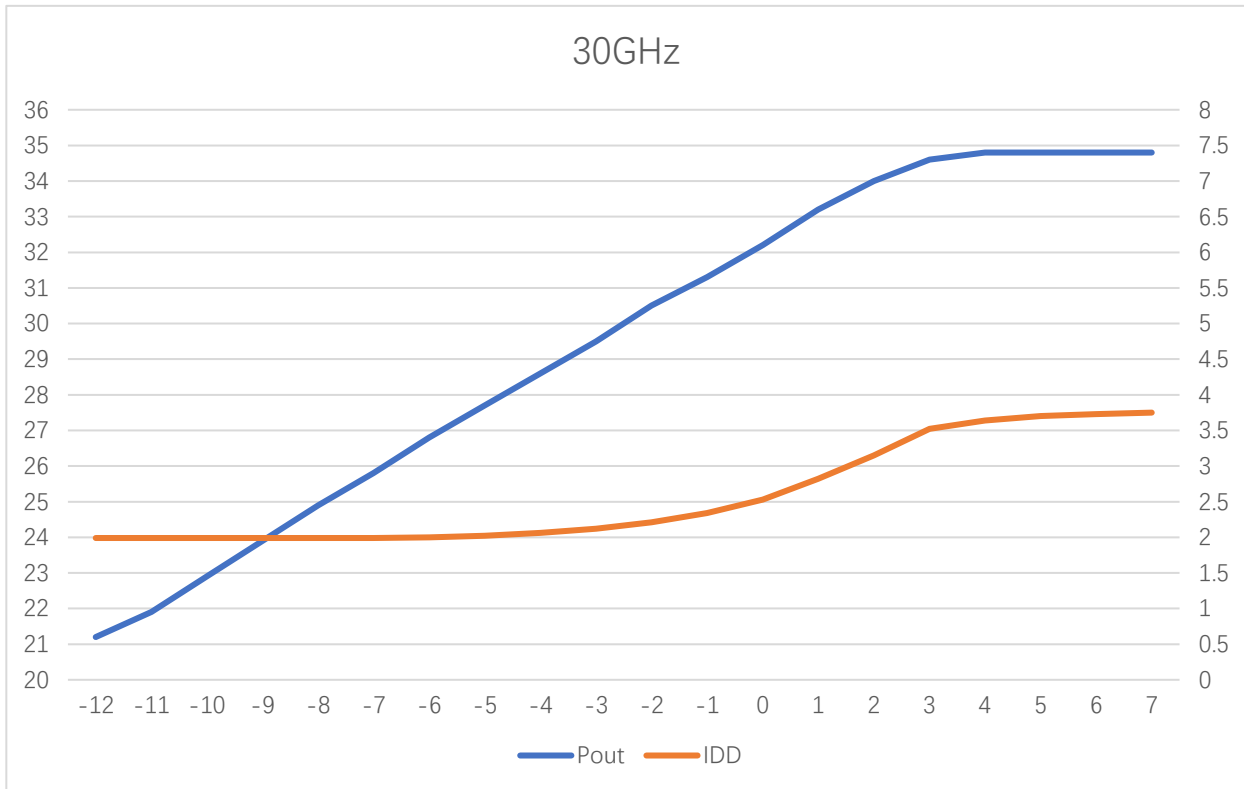
Pout and IDD vs Pin at 26GHz



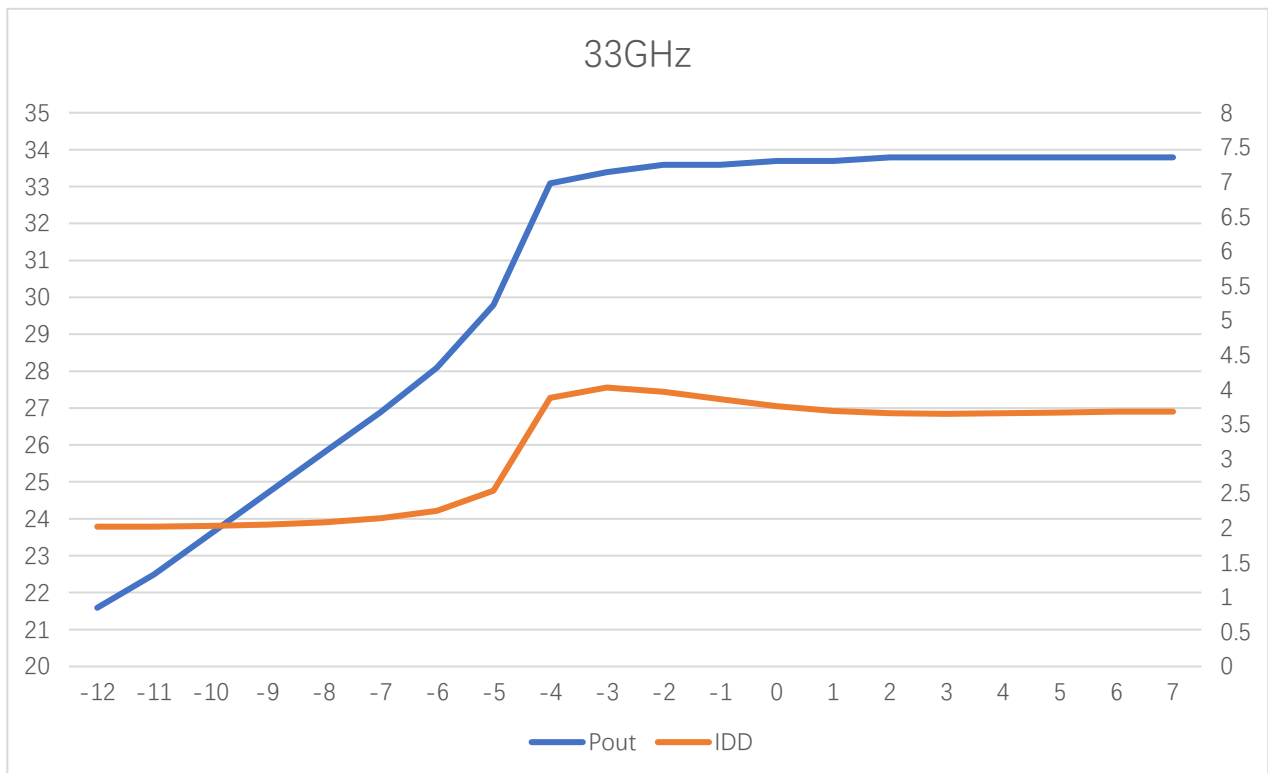


# AT-HPA-2640-3334N

26-40GHz High Power Amplifier

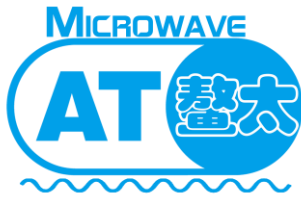


Pout and IDD vs Pin at 30GHz



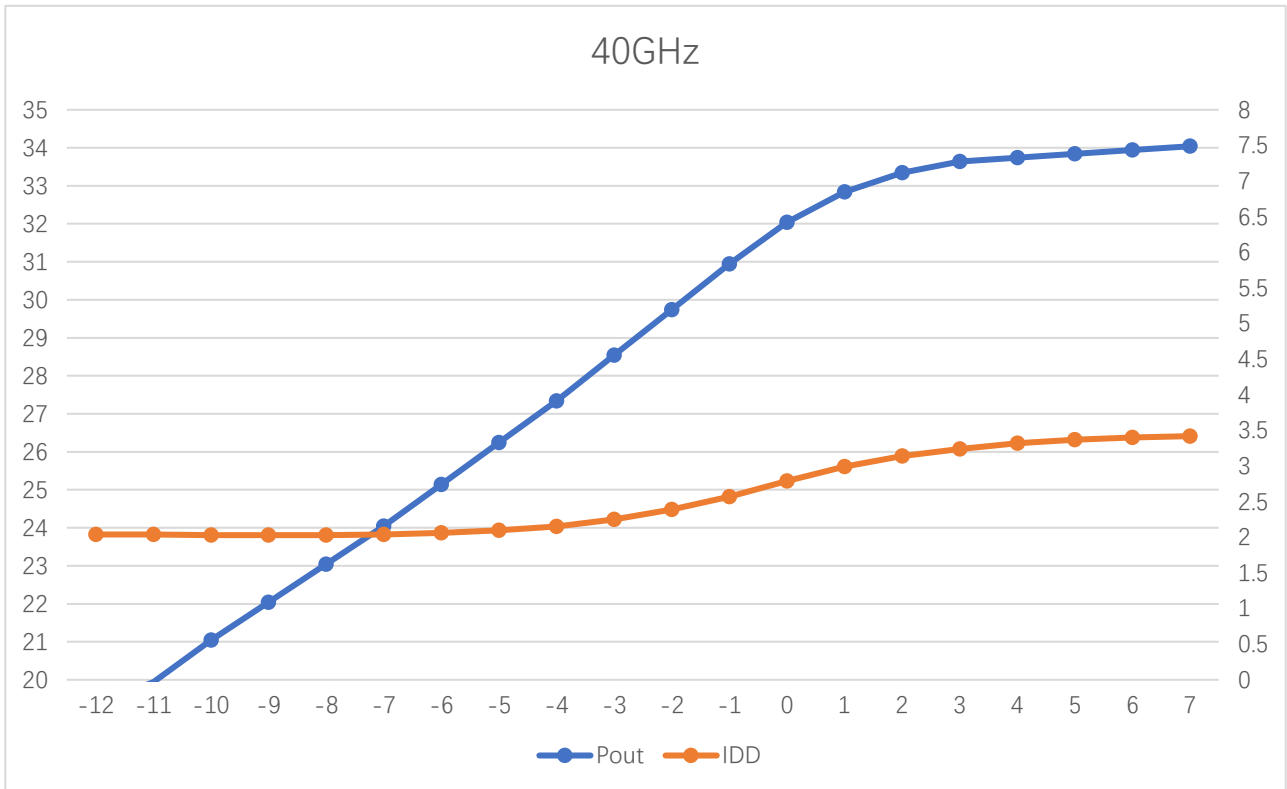
Pout and IDD vs Pin at 33GHz





# AT-HPA-2640-3334N

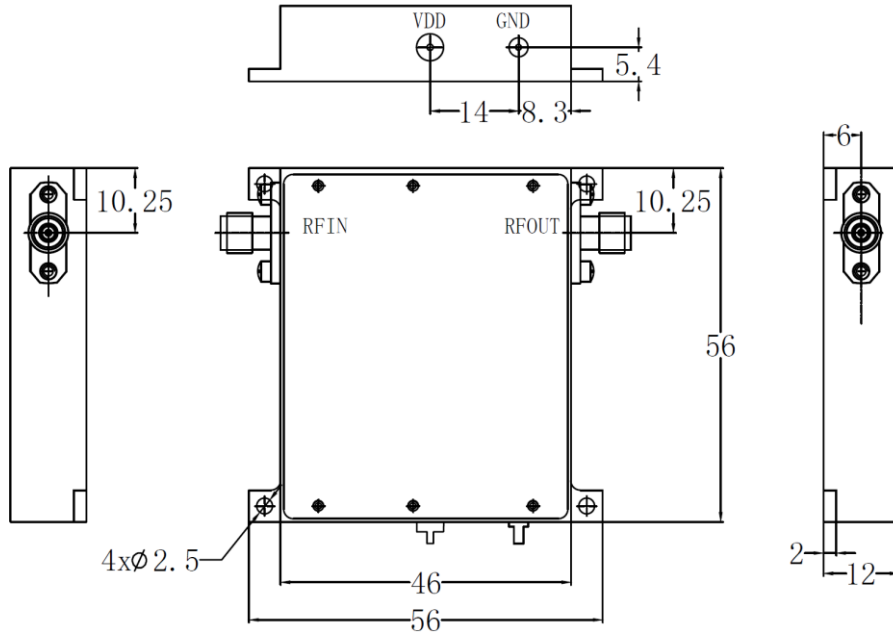
26-40GHz High Power Amplifier



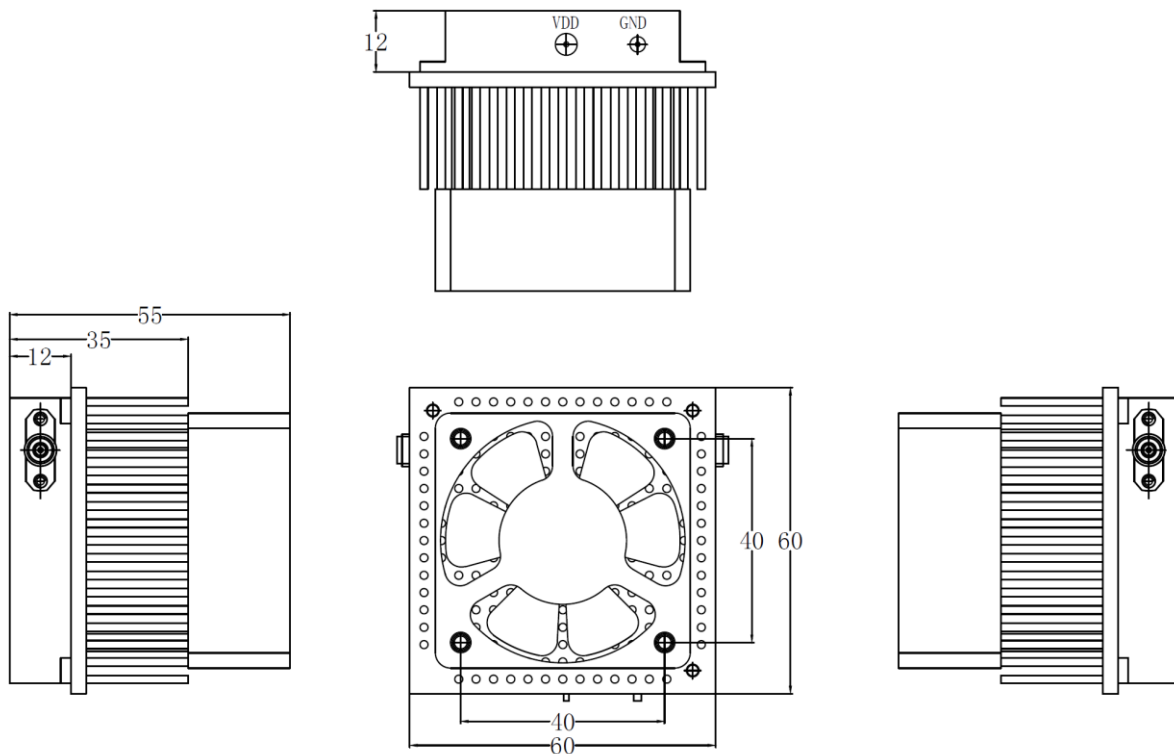
Pout and IDD vs Pin at 40GHz



**Dimension:** (mm)



Outline without Heatsink and Fan, Heatsink Required during Operation



"-HF" option with Heatsink and Fan

