

## W Band Power Amplifier, +30dBm



### Product Overview

AT-PA-9296-3030 is power amplifier with +30dBm output power in the frequency of 92-96GHz. The DC power requirement is +15V/0.6A. The module is with a standard WR-10 waveguide. GaN chips are used inside module.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response.

It can also be used from 88-98GHz with some variation of performance.

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

### Advantages

- ✓ Frequency: 92-96GHz
- ✓ Psat:+30dBm
- ✓ Small signal gain: 30dB
- ✓ Single Power Supply

### Application

- ✓ W band Imaging
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

### Key Features

Parameter	Min	Typical	Max
Frequency	88GHz	92-96GHz	98GHz
Gain (Small Signal Gain)		30dB	
P1dB	+26	+28dBm	
Output Saturated Power	+29	+30 dBm	
Supply Voltage (V)		+15V	+18V
Idd/NO RF		0.55A	
IDD/ Psat		0.65A	
Input Return Loss		-5dB	
Output Return Loss		-5dB	
Spec Temp		25C	





# AT-PA-9296-3030

92-96GHz Power Amplifier, Psat=+30dBm

## Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	270g
Size:	57.5x40.5x22.4 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+20V
RF Input Power	+15dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

### Note:

Output Port Must be connected to Load during operation, or the PA may be damaged due to the poor VSWR.  
操作过程中，输出端不能空载，否则可能损坏 PA 模块。

### Caution:

Please pay attention to the case temperature. If case temperature exceeds higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

### Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



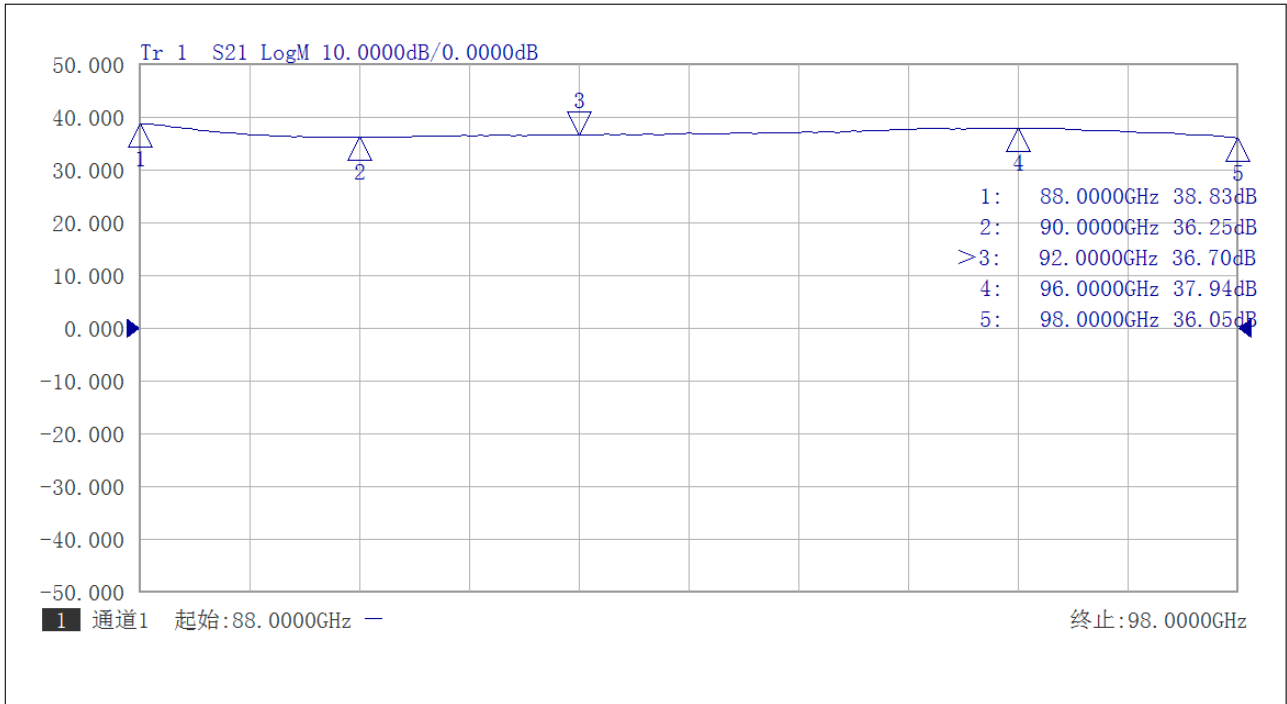


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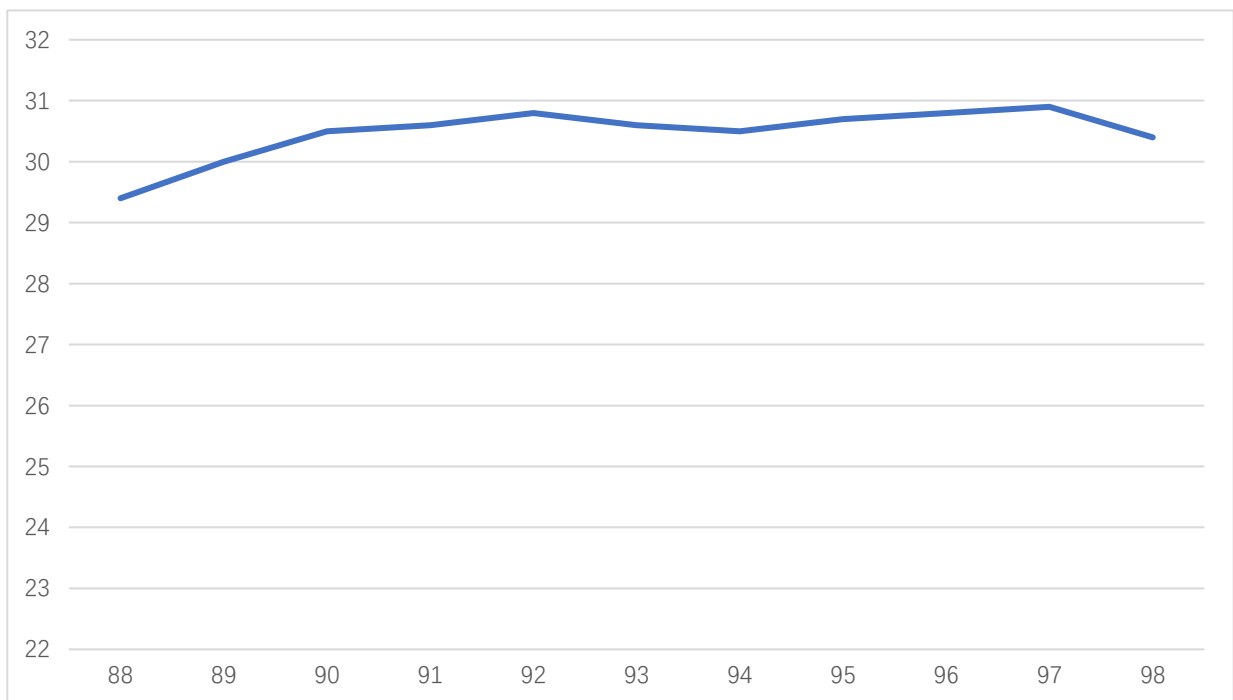
92-96GHz Power Amplifier,  $P_{sat}=+30\text{dBm}$

## Test Data:

$V_{dd}=+15\text{V}$ ,  $I_{dd}=0.56\text{A}$ ,  $I_{DD}=0.65\text{A}$  at  $P_{sat}$ ,  $25\text{C}$



Gain vs Frequency



Pout vs. Frequency,  $P_{in}=0\text{dBm}$

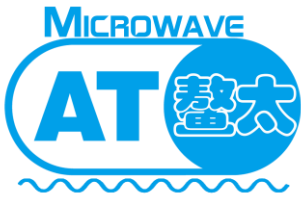
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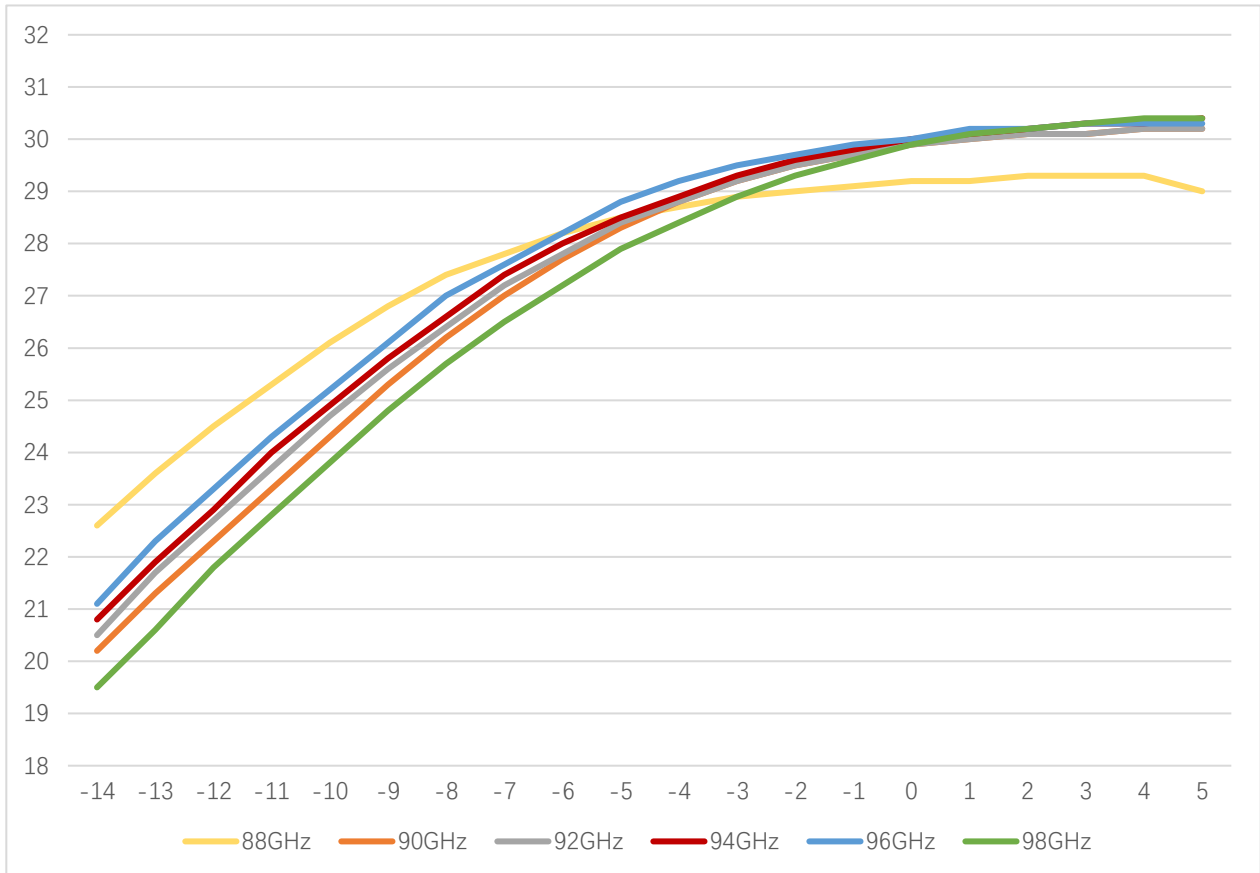
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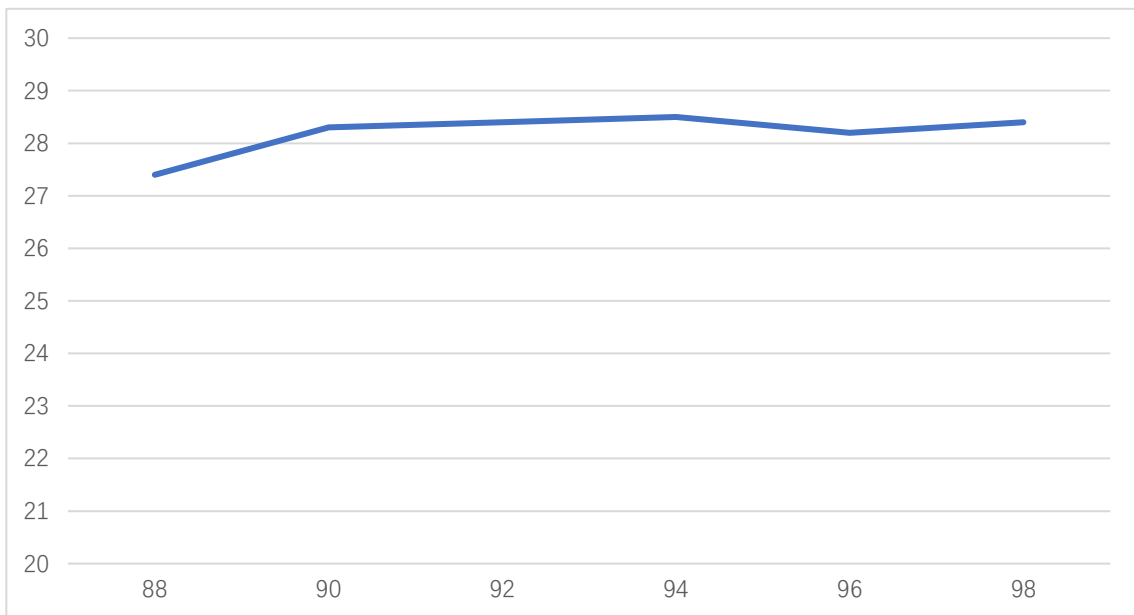


# AT-PA-9296-3030

92-96GHz Power Amplifier,  $P_{sat}=+30dBm$



Pout vs Pin at 88/90/92/94/96/98GHz



P1dB vs Frequency

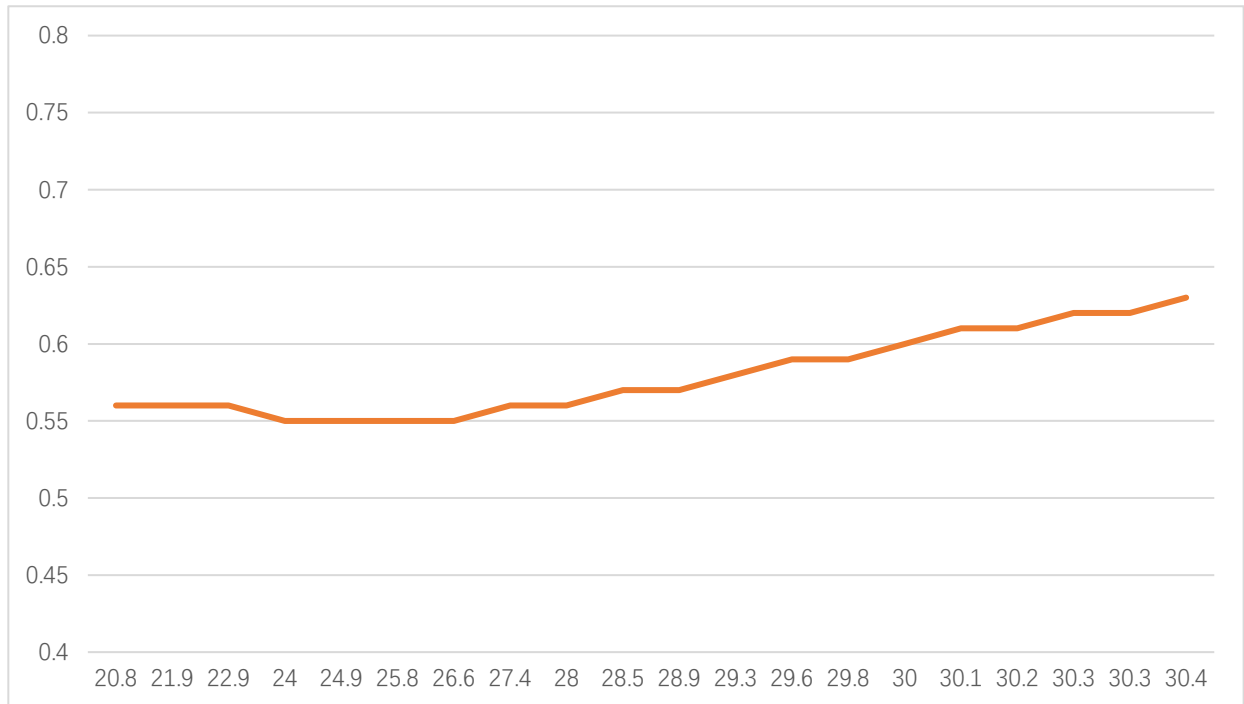
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IDD vs Pout at 94GHz

### W BAND 75-110GHZ

