

## V Band Medium Power Amplifier



### Product Overview

AT-PA-5565-1620 is power amplifier with +20dBm output power in the frequency of 55-65GHz. The DC power requirement is +5V/470mA. The module is with a standard WR-15 waveguide.

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

It can also be used from 52-70GHz with some variation of performance.

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

### Advantages

- ✓ Frequency: 55-65GHz
- ✓ Psat:+20dBm
- ✓ Small signal gain: 16dB
- ✓ Single Power Supply

### Application

- ✓ V Band Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

### Key Features

Parameter	Min	Typical	Max
Frequency		55-65GHz	
Gain	14	16dB	
Drain Supply		+5V	+8V
P1db		+18dBm	
Psat		+20dBm	
Current quiescent		275 mA	
Current at Psat		470mA	500mA
Input Return Loss		-7dB	
Output Return Loss		-7dB	
Spec Temp		25C	





# AT-PA-5565-1620

55-65GHz Power Amplifier,  $P_{sat}=+20\text{dBm}$

## Mechanical Information

Item	Description
Input Port	WR-15
Output Port	WR-15
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	100g
Size:	40x25X20 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+12dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

### Caution:

Please pay attention to the case temperature. If case temperature exceed 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.



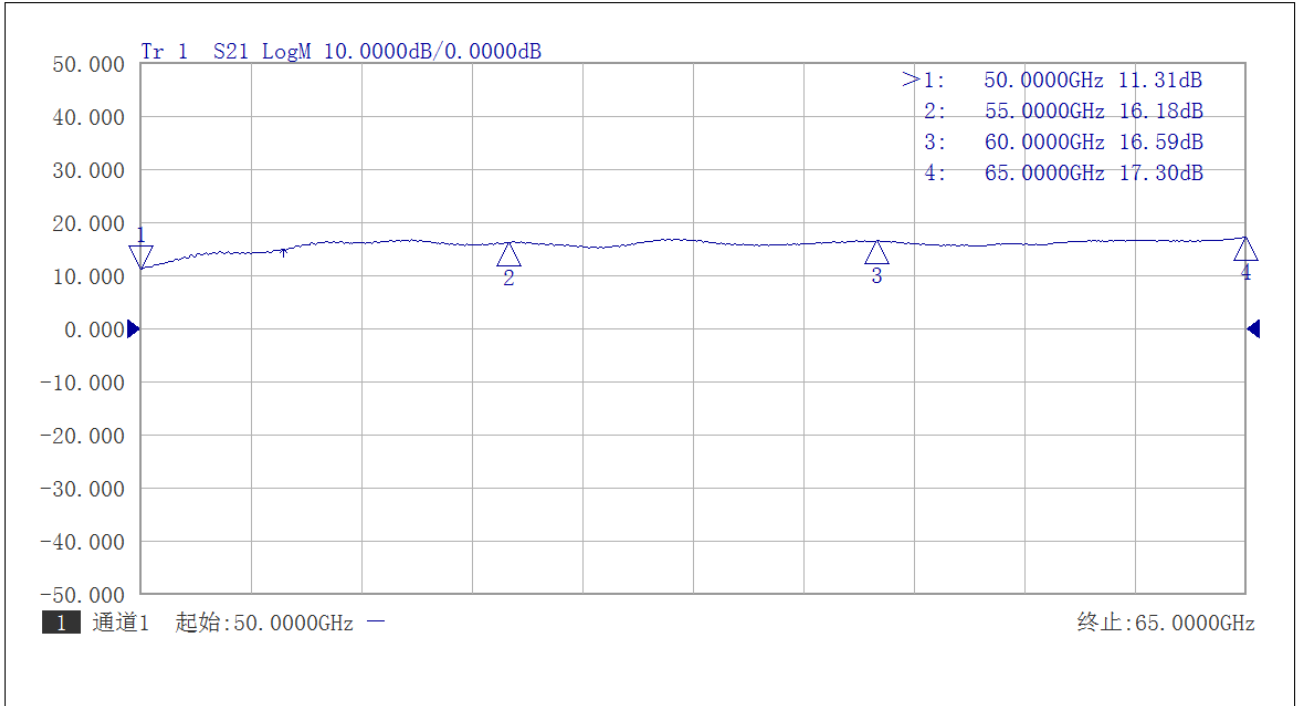


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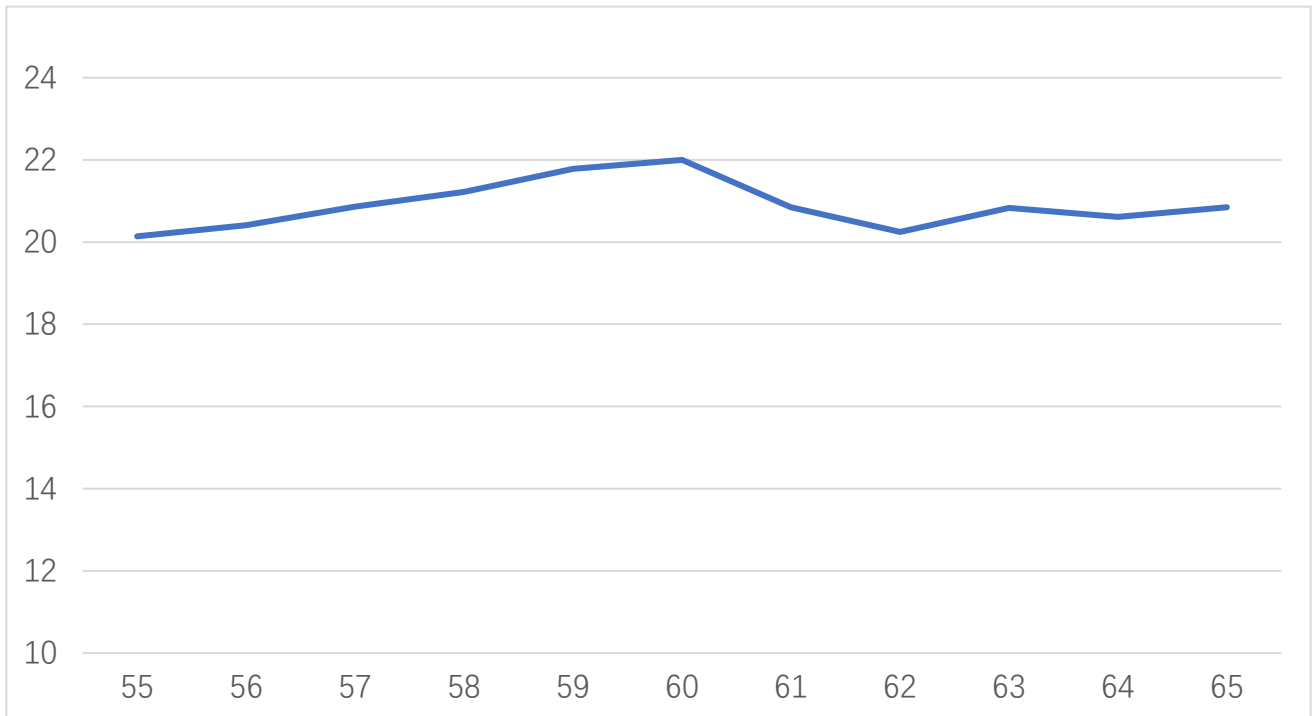
55-65GHz Power Amplifier,  $P_{sat}=+20\text{dBm}$

## Test Data (25C)

Vdd=+5V, Idd=270mA without RF. Idd=470mA at Psat.



Gain VS Frequency



Pout vs Frequency

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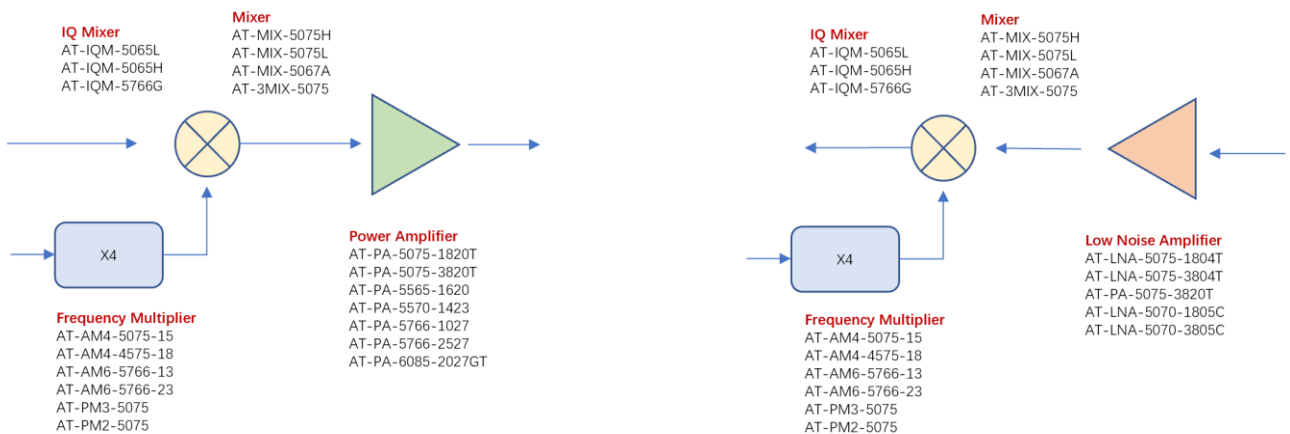
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Pout vs Pin at 55/60/65GHz

### V Band 50-75GHz



**Dimension:**(unit in mm)

