

Full U Band(40-60GHz) Power Amplifier

Gain=33dB, Pout=+20dBm, NF=6dB, 1.85mm



Product Overview

AT-PA-4060-3320VC is high power amplifier with +20dBm output power in the frequency of 40-60GHz. The DC power requirement is +5V/500mA. The module is with 1.85mm Female. This amplifier is with very low NF=6dB, which can also be used as low noise amplifier.

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

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 40-60GHz
- ✓ P1/Psat:+18/20dBm
- ✓ Small signal gain: 33dB
- ✓ NF=6dB
- ✓ Single Power Supply

Application

- ✓ U Band Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System
- ✓ Microwave Point to Point

Key Features

Parameter	Min	Typical	Max
Frequency		40-60GHz	
Gain	30dB	33dB	
P1dB		+18dBm	
Psat		+20dBm	
NF		6dB	
Drain Supply		+5V	+8V
Current		500 mA	
Input Return Loss		-7dB	
Output Return Loss		-7dB	
Spec Temp		25C	





AT-PA-4060-3320VC

40-60GHz Medium Power Amplifier

Mechanical Information

Item	Description
Input Port	1.85mm Female
Output Port	1.85mm Female
Case Material	Copper
Finish	Gold Plated
Package Sealing	Epoxy Sealed
Weight (Without Heatsink)	90g
Size:	30x30x14 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+8dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

Caution:

Please pay attention to the case temperature.

If case temperature exceeds +50C, heat sink and fan are required.

Bias Procedure:

Make sure GND is connected before Vdd Power ON.

Module may be damaged when Vdd Power ON without GND.





AT-PA-4060-3320VC

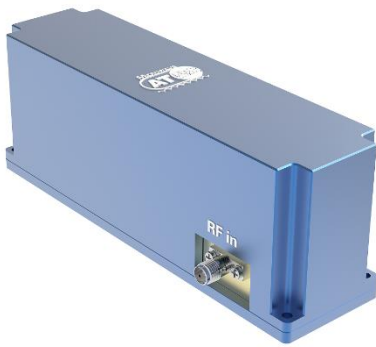
40-60GHz Medium Power Amplifier

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.

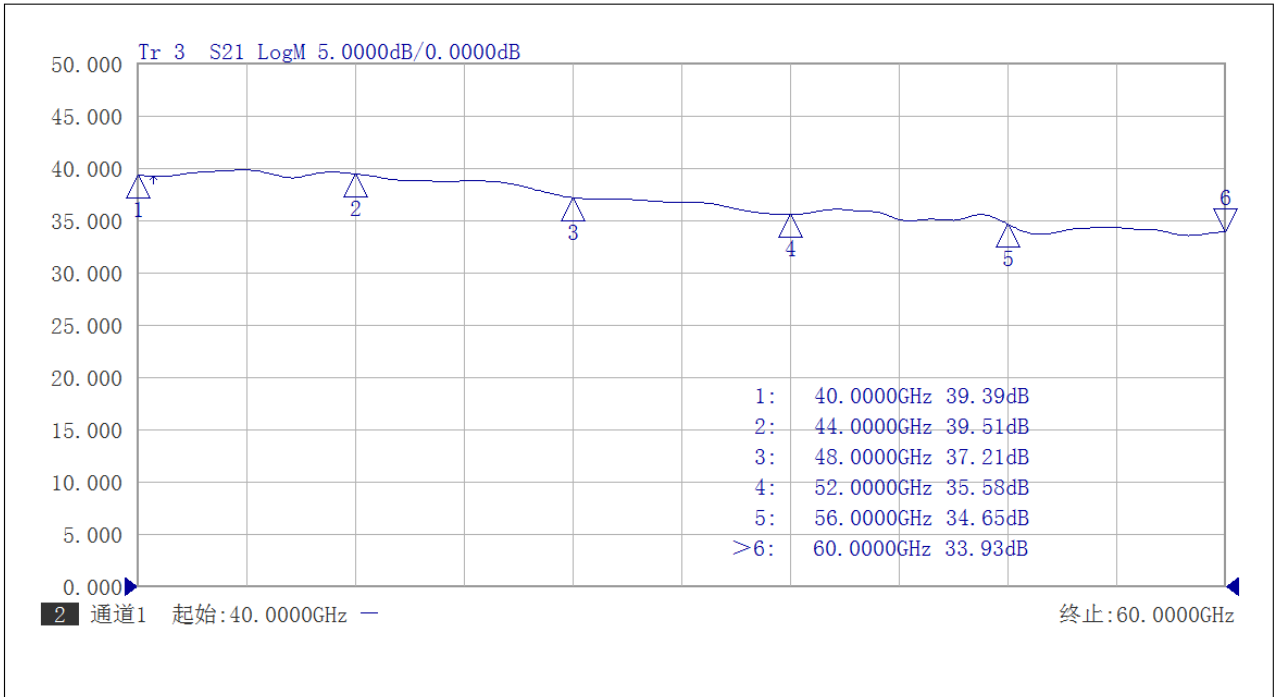
Part Number Selection Guide

Item	Description
PN	Stand Module with DC Power Supply
PN-LCBT	L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter

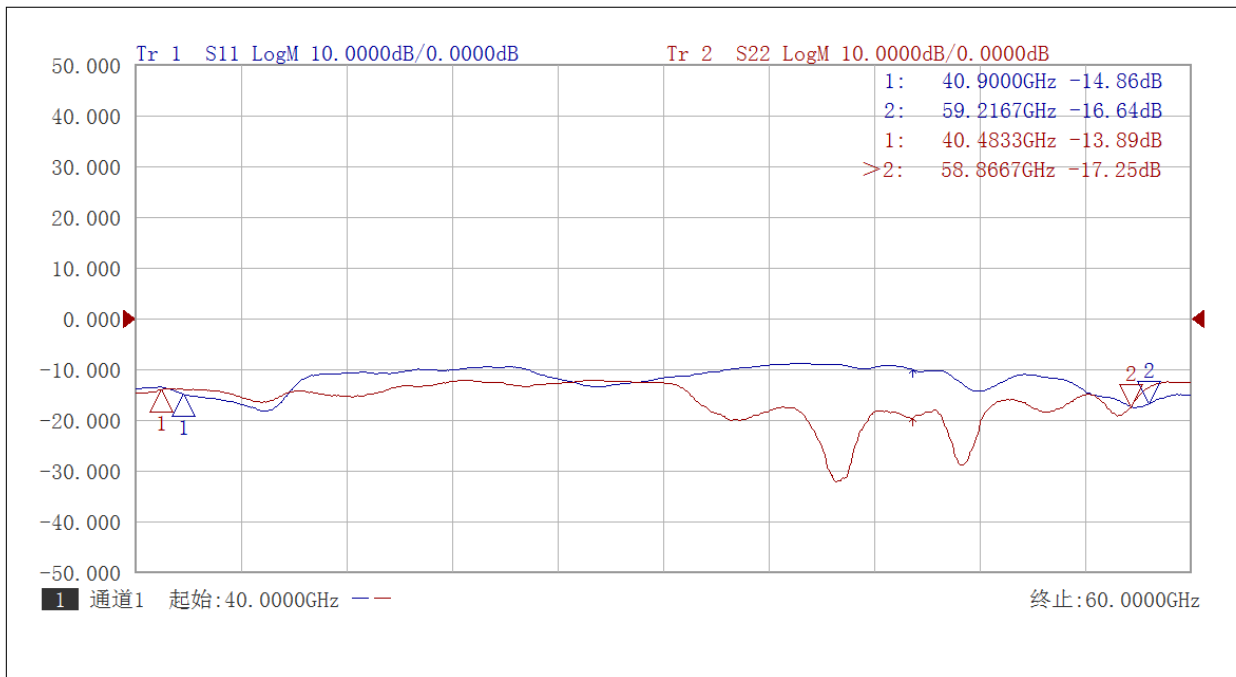


Test Data (25C)

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



Gain vs Frequency



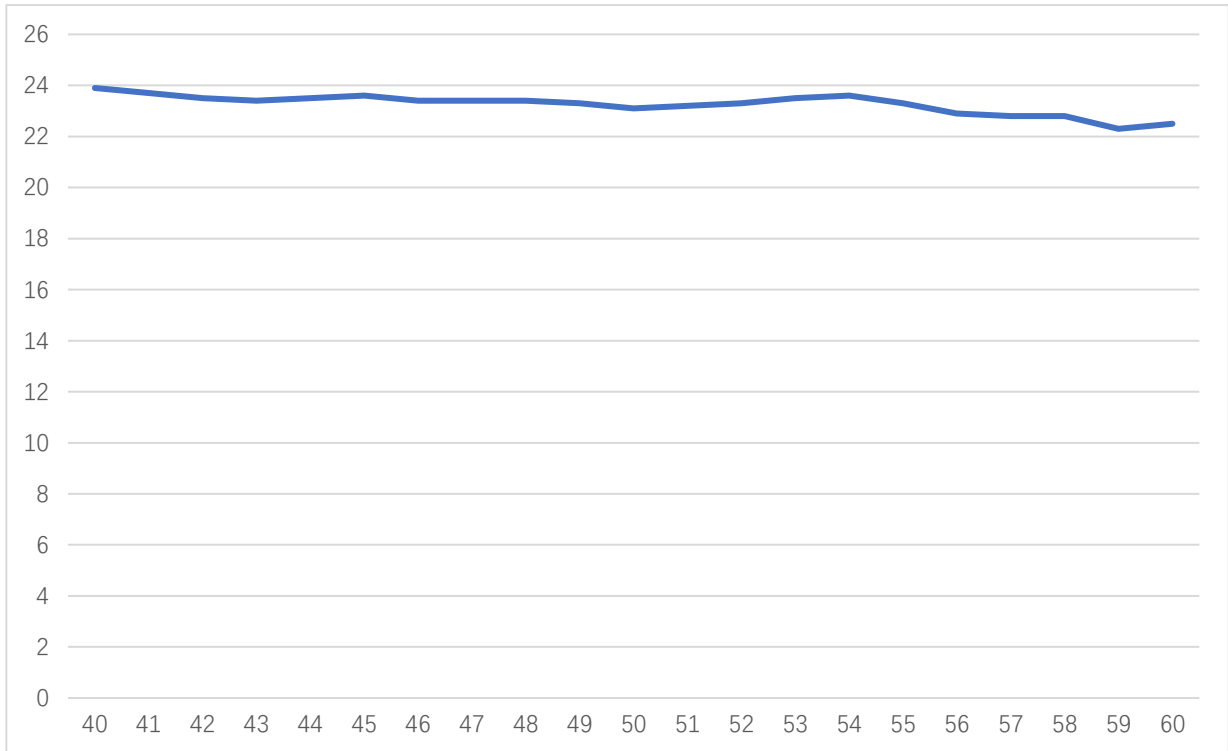
Return Loss vs Frequency



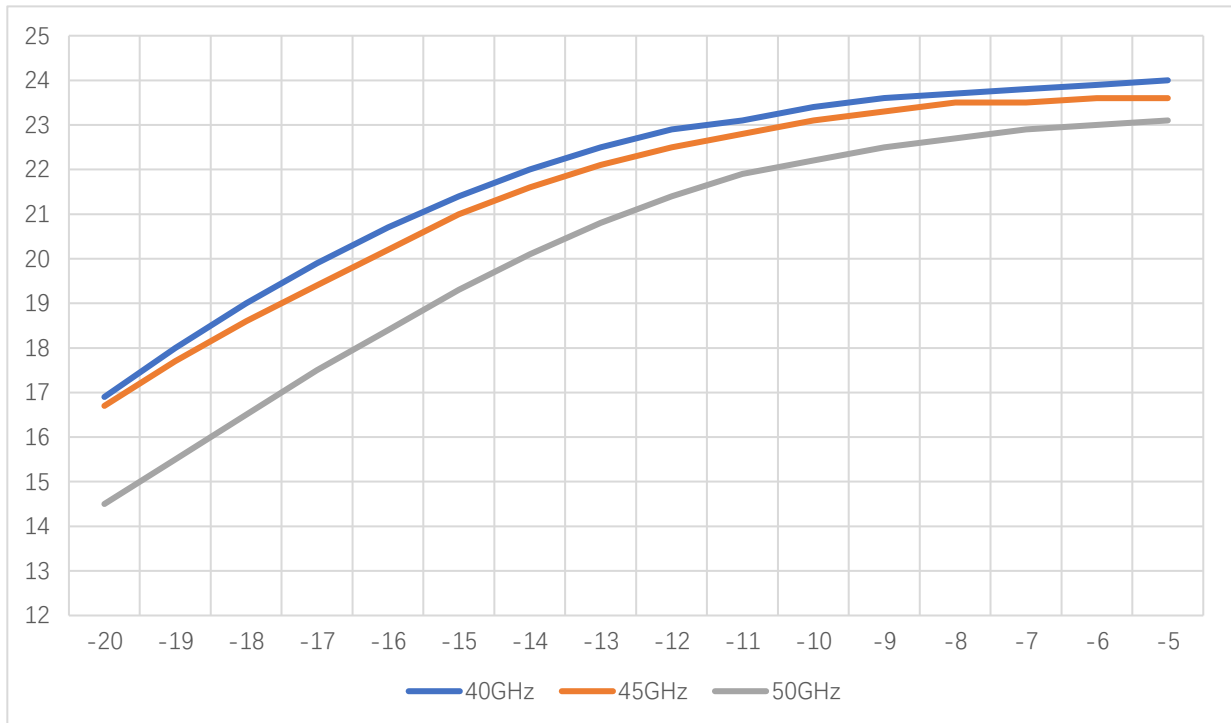


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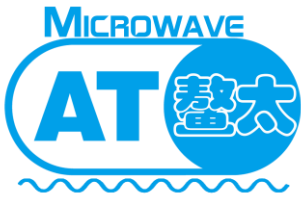


Psat vs Frequency



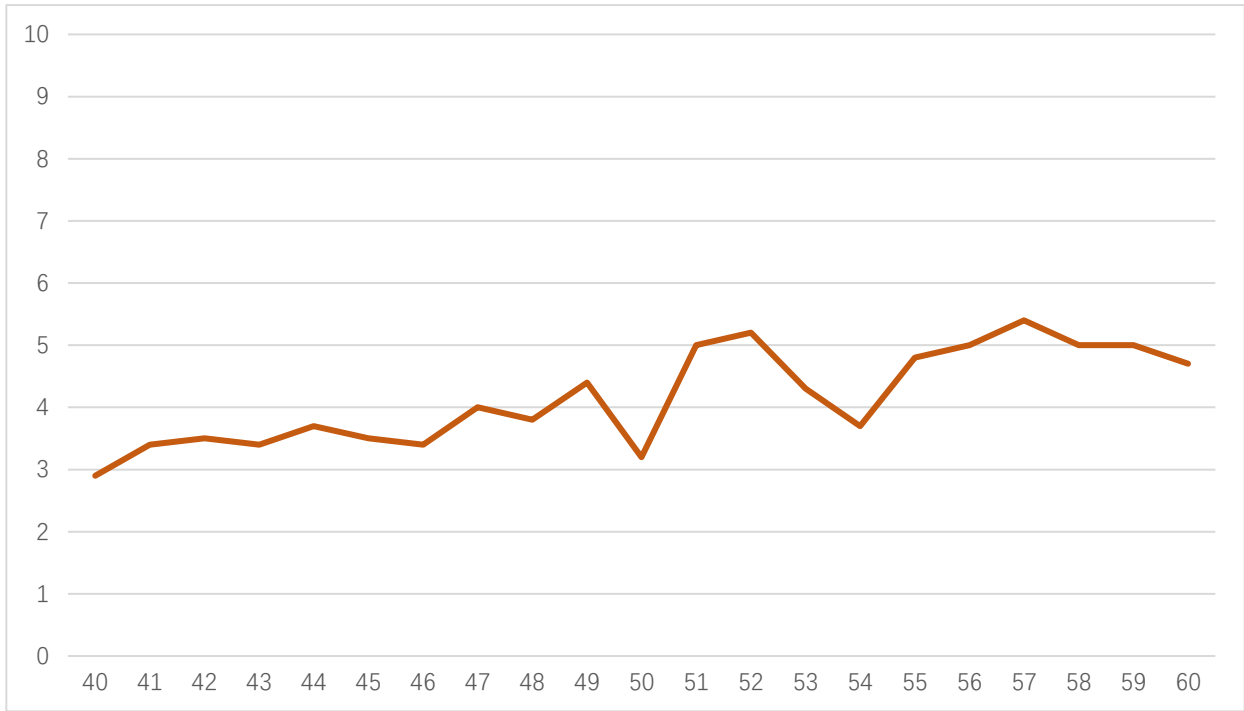
Pout vs Pin at 40/45/50GHz





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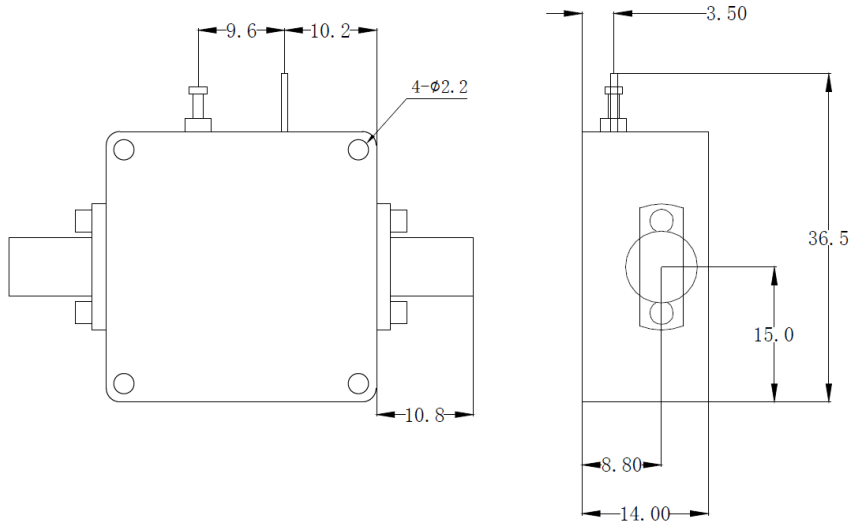
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NF vs Frequency

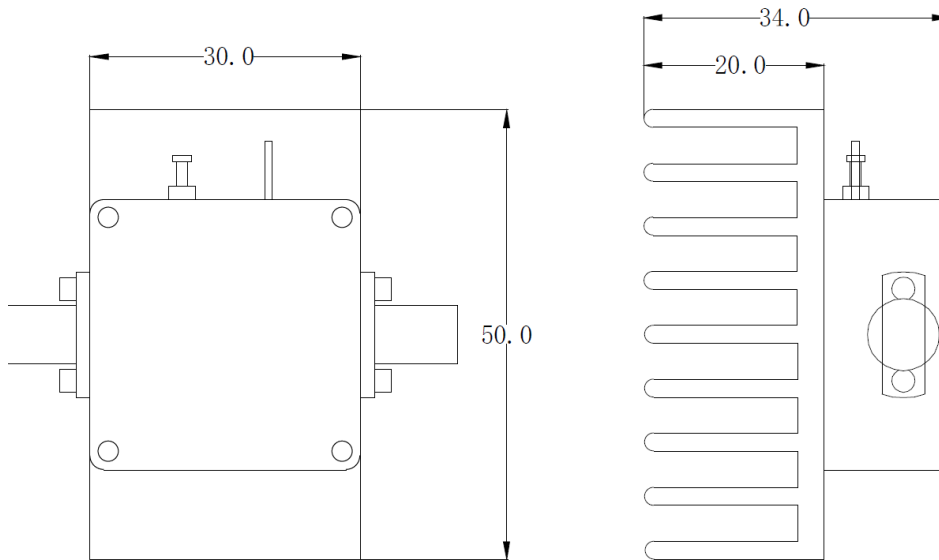


Dimension: (unit in mm)



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Lenth of a	9.4mm	9.5mm	10.8mm	11.3mm

Note: Female Default. Contact with us for other types.



Including a small heatsink without Fan if output Power higher than +20dBm.
Customers can removed it or use their own heatsink according to actual situation.

Heat Sink Required During Operation

