

50-70GHz Broadband Power Amplifier



Product Overview

AT-PA-5070-3020VC is high power amplifier with +20dBm output power in the frequency of 50-70GHz. 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: 50-70GHz
- ✓ Psat:+20dBm
- ✓ Small signal gain: 30dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		50-70GHz	
Gain	26dB	30dB	
Gain Flatness		+/-3dB	
P1dB		+18dBm	
Psat		+20dBm	
NF		6dB	
Drain Supply		+5V	+8V
Current		500 mA	
Input Return Loss		-6dB	
Output Return Loss		-10dB	
Spec Temp		25C	





AT-PA-5070-3020VC

50-70GHz 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:

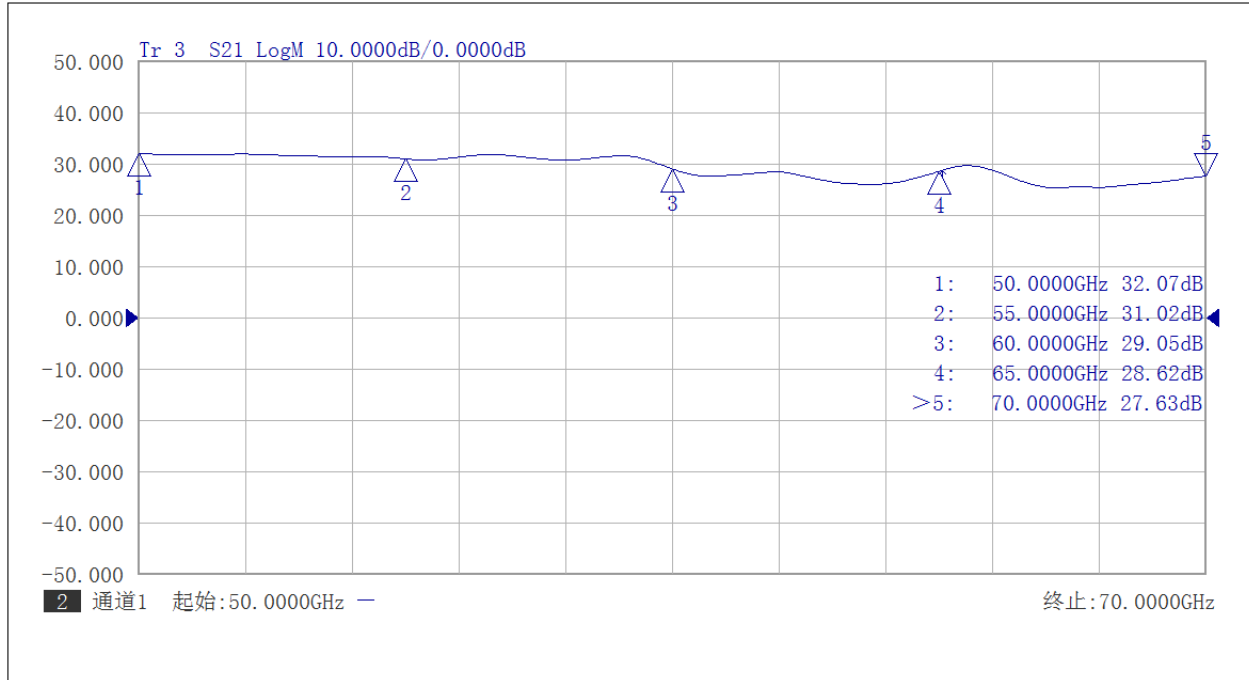
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

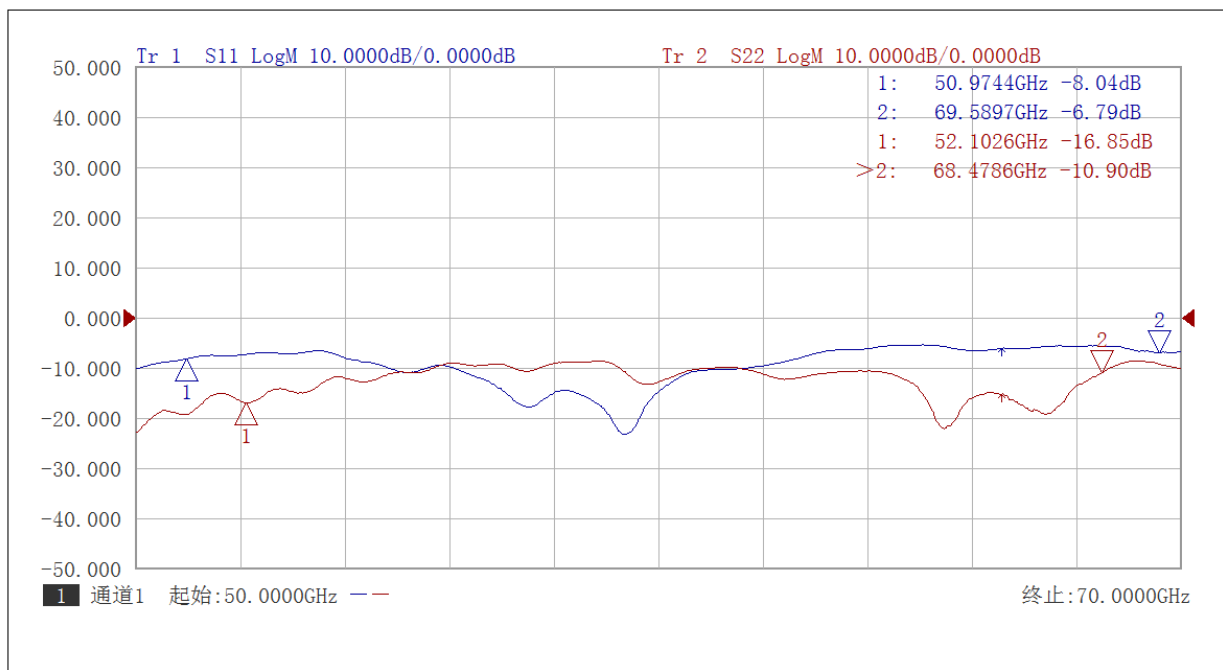
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data:

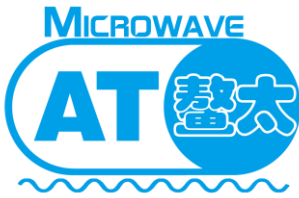


Gain vs Frequency



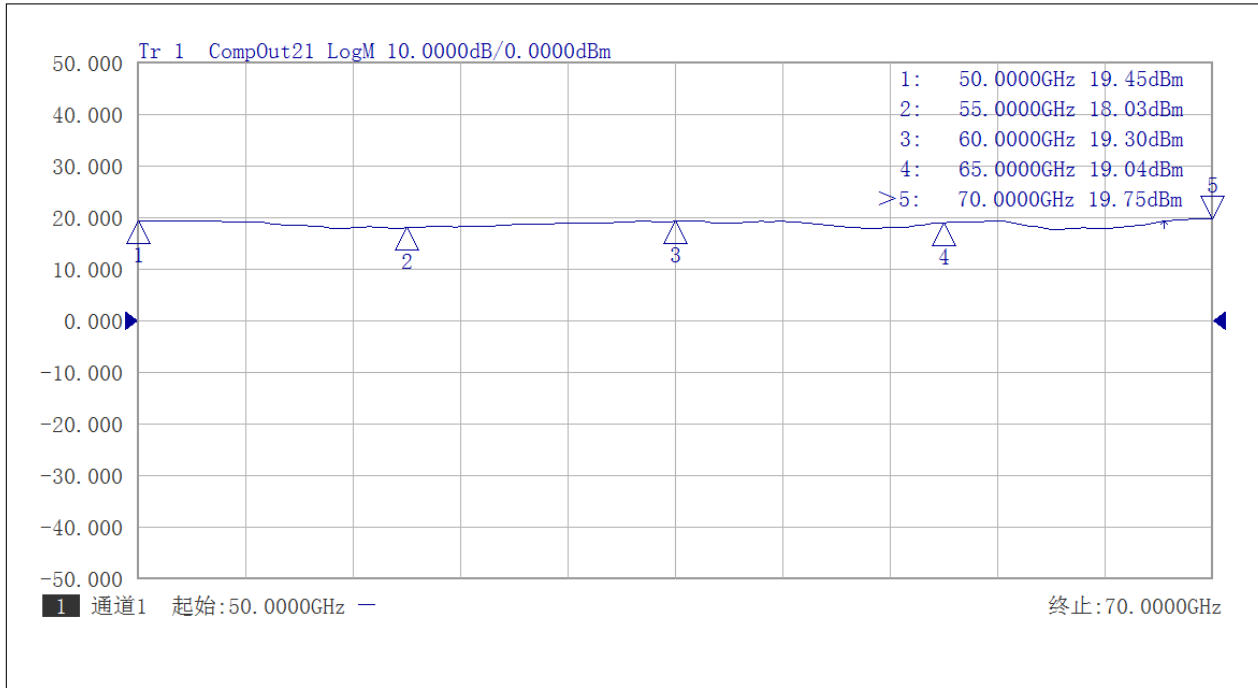
Input and Output Return Loss



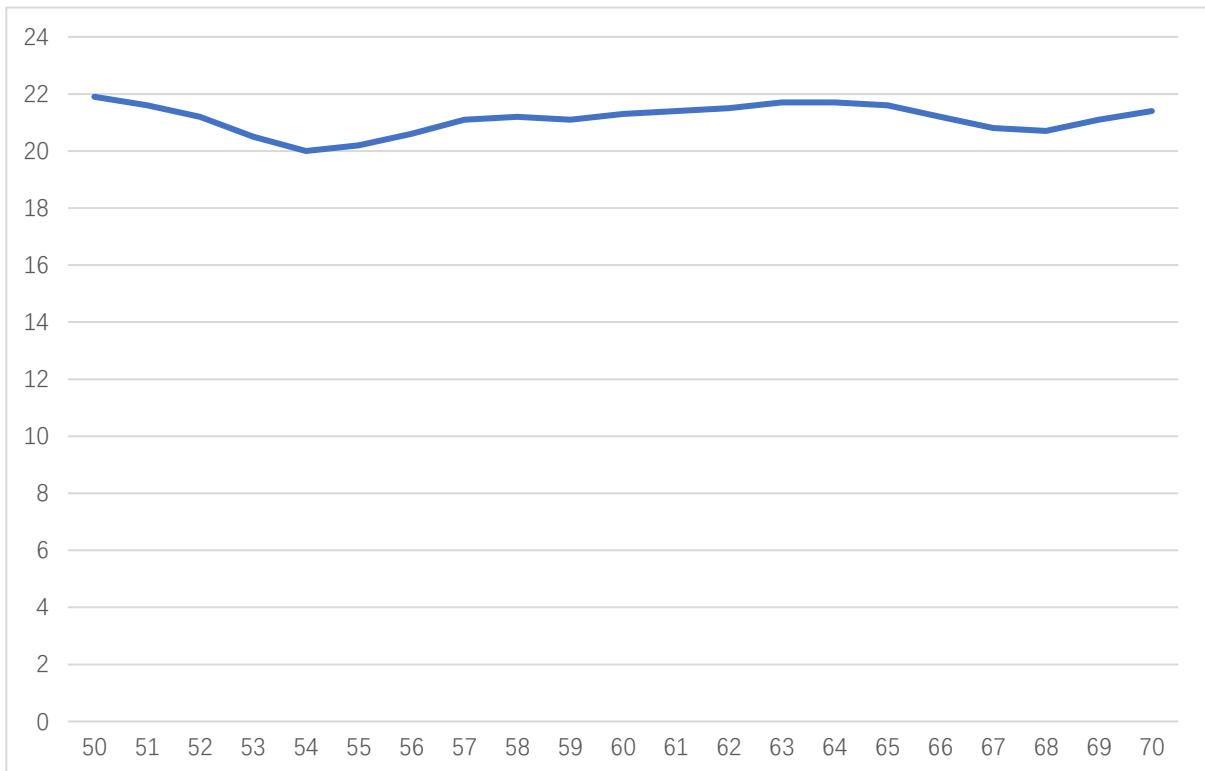


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P1dB vs Frequency



Psat vs Frequency

Shanghai AT Microwave Limited

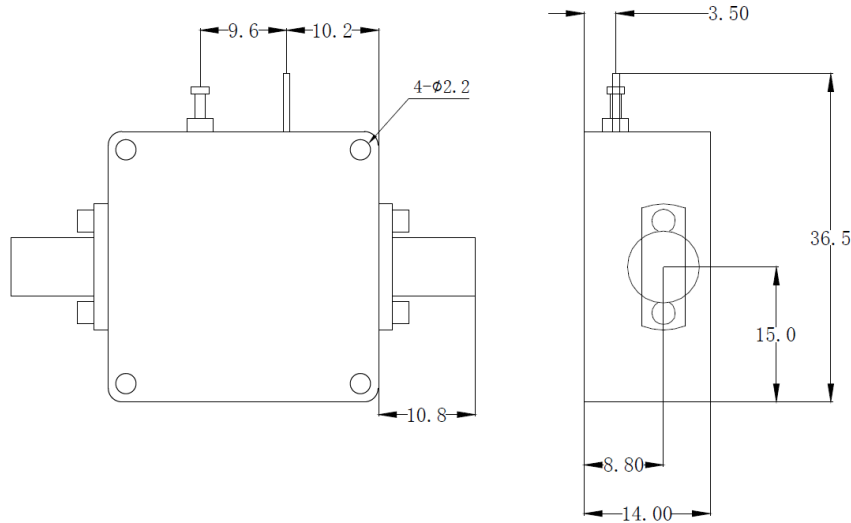
Tel:021-6229 1230

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www.atmicrowave.com

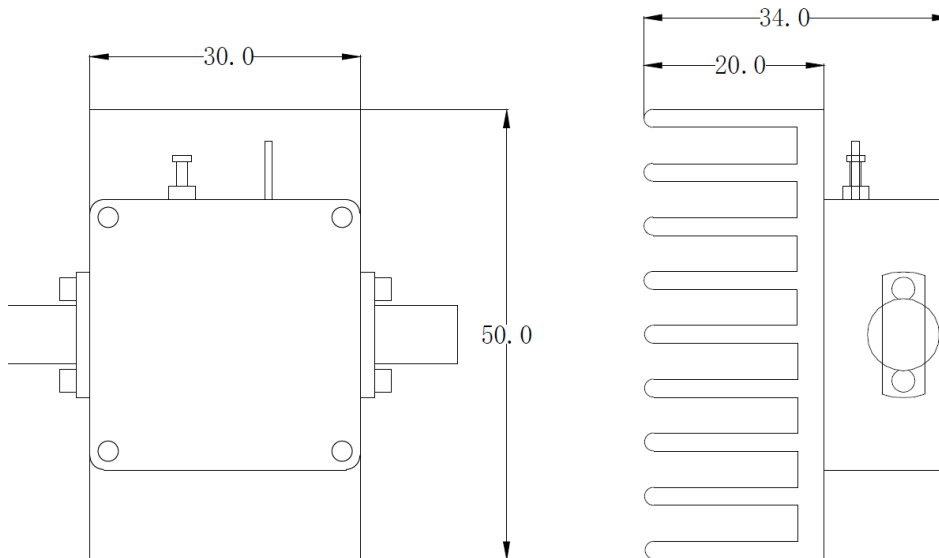


Dimension: (unit in mm)



	<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

