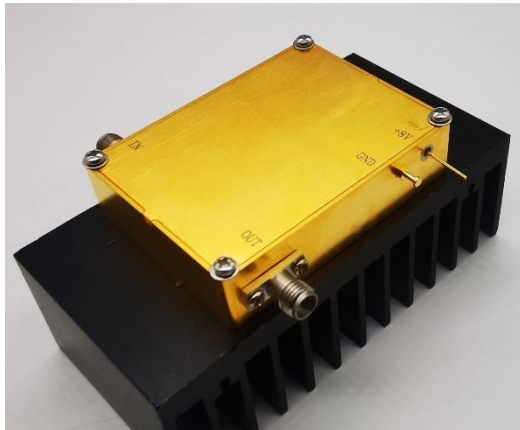


1-20GHz Broadband Amplifier, +29dBm

V2-
2021-9-30



Product Overview

AT-PA-0120-2529X is high gain power amplifier with +29dBm output power in the frequency of 1-20GHz. The DC power requirement is +12V/530mA. The module is with SMA connector.

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: 1-20GHz
- ✓ Psat:+29dBm
- ✓ Small signal gain: 25dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		1-20GHz	
Gain	23	25dB	
P1dB		+28dBm	
Psat		+29dBm	
Drain Supply		+12V	+15V
Idd NO RF		0.53A	
IDD PSAT		0.8A	0.9A
Input Return Loss		-12dB	
Output Return Loss		-12dB	
Spec Temp		25C	





AT-PA-0120-2529X

1-20GHz Power Amplifier

Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	180g
Size:	60x45x14 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
RF Input Power	+15 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

Caution:

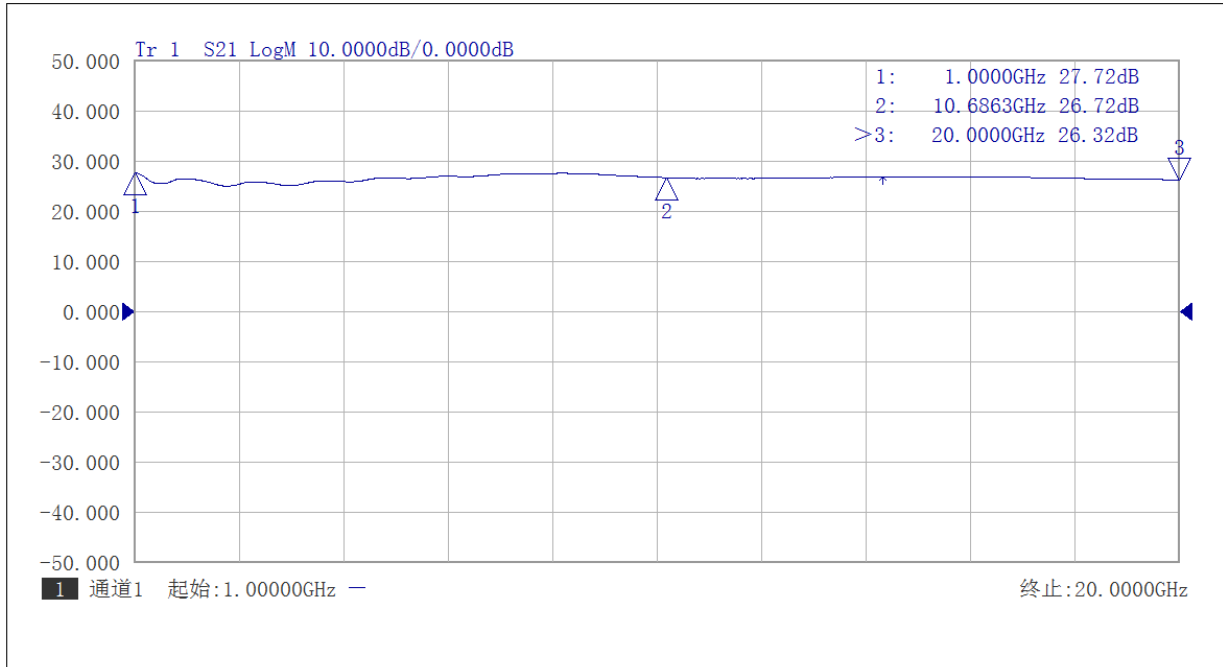
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

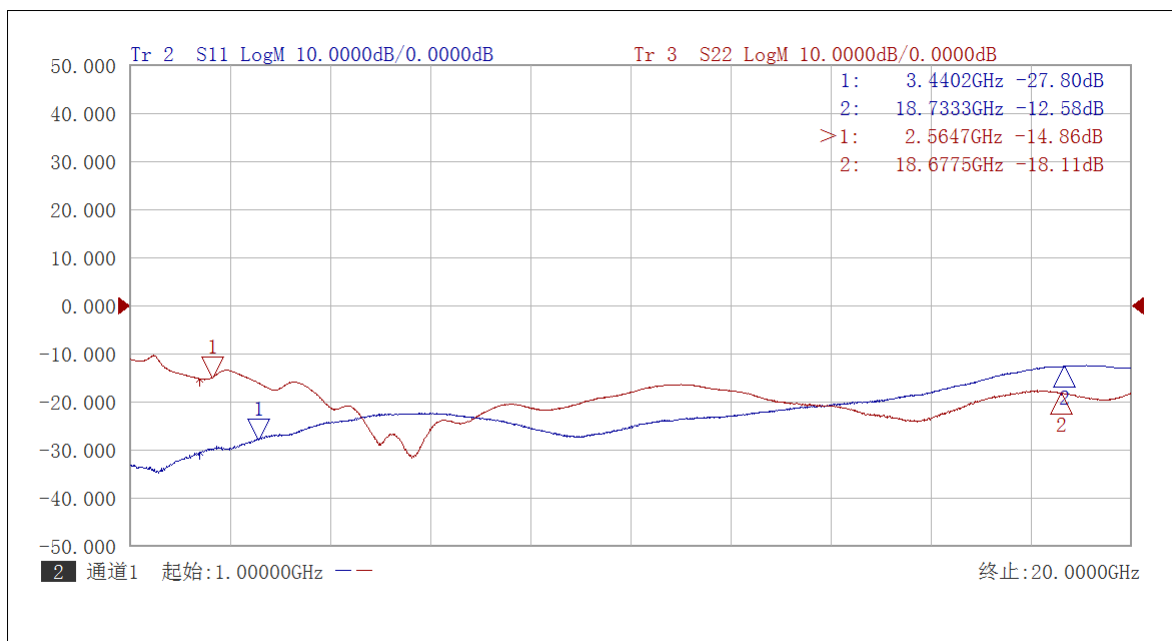
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data:

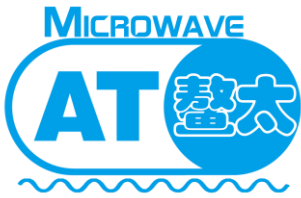


Gain vs Frequency



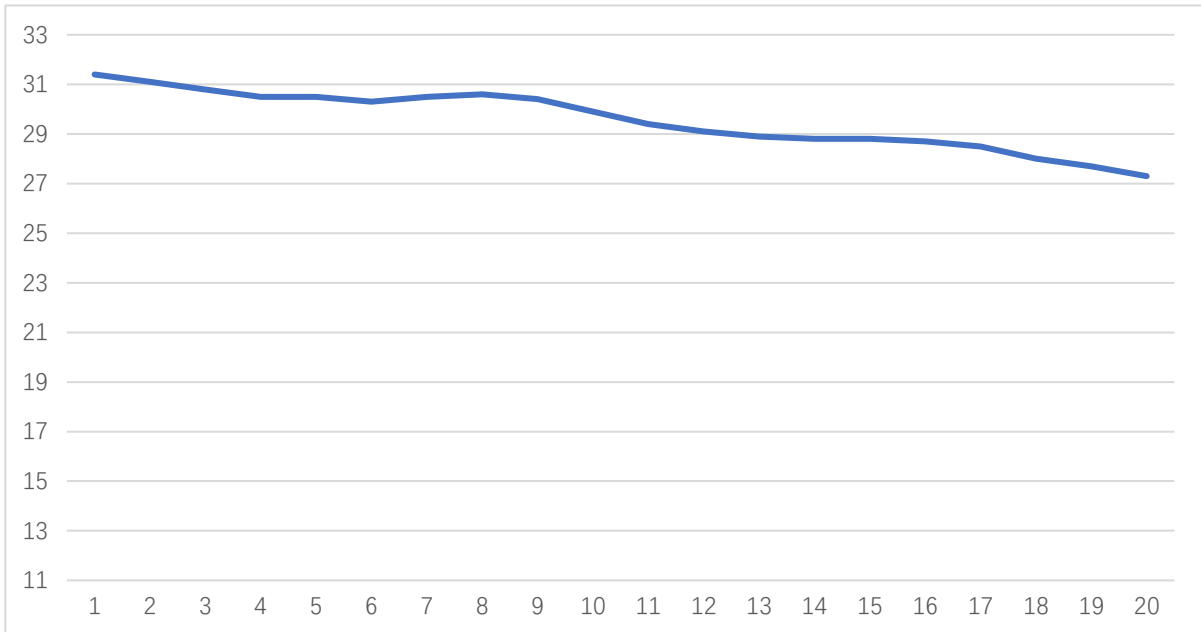
S11/S22 Return Loss vs Frequency



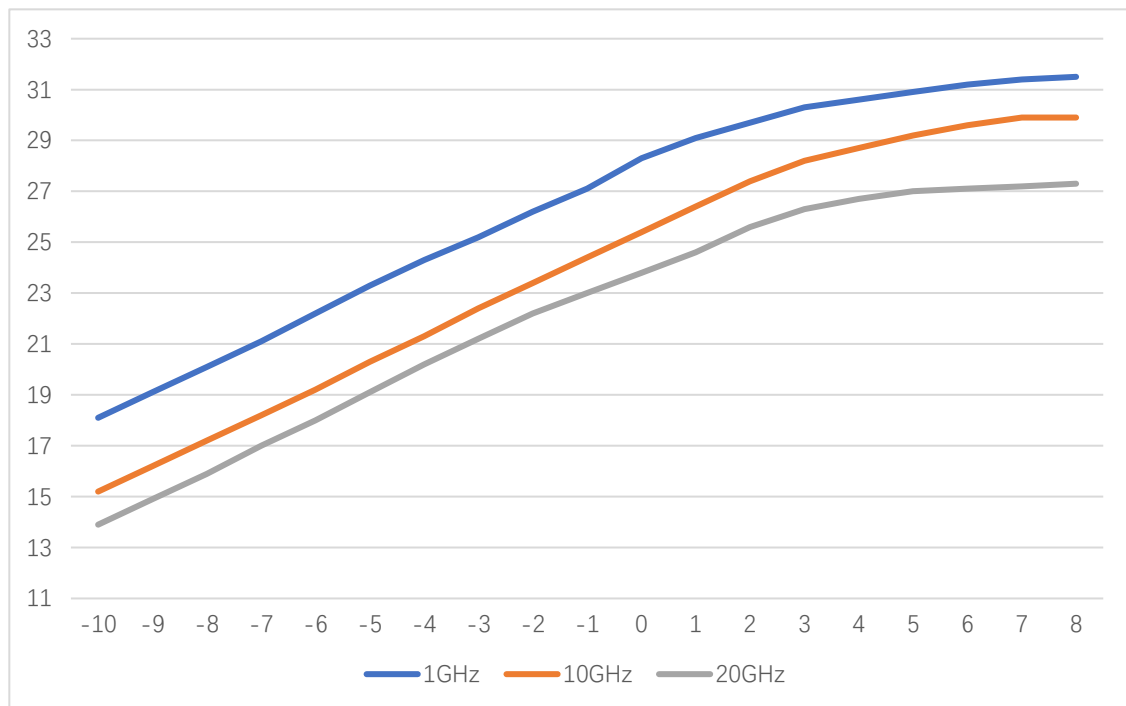


AT-PA-0120-2529X

1-20GHz Power Amplifier



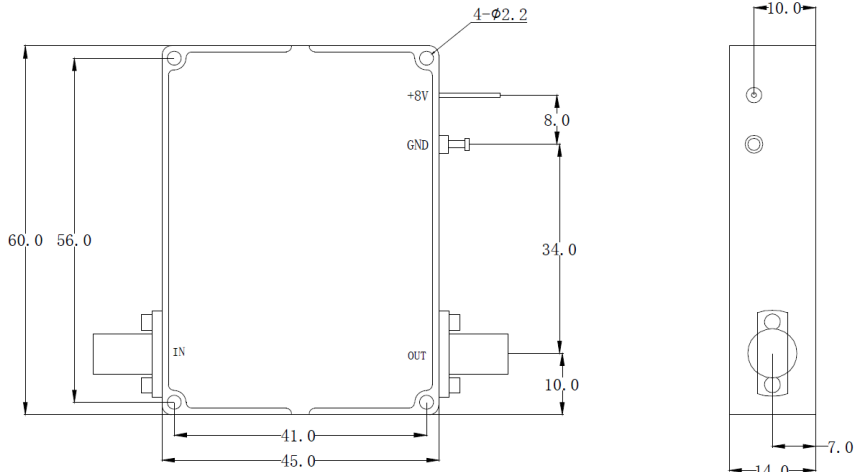
Psat vs Frequency Pin=+7dBm



Pout vs Pin at 1/10/20GHz

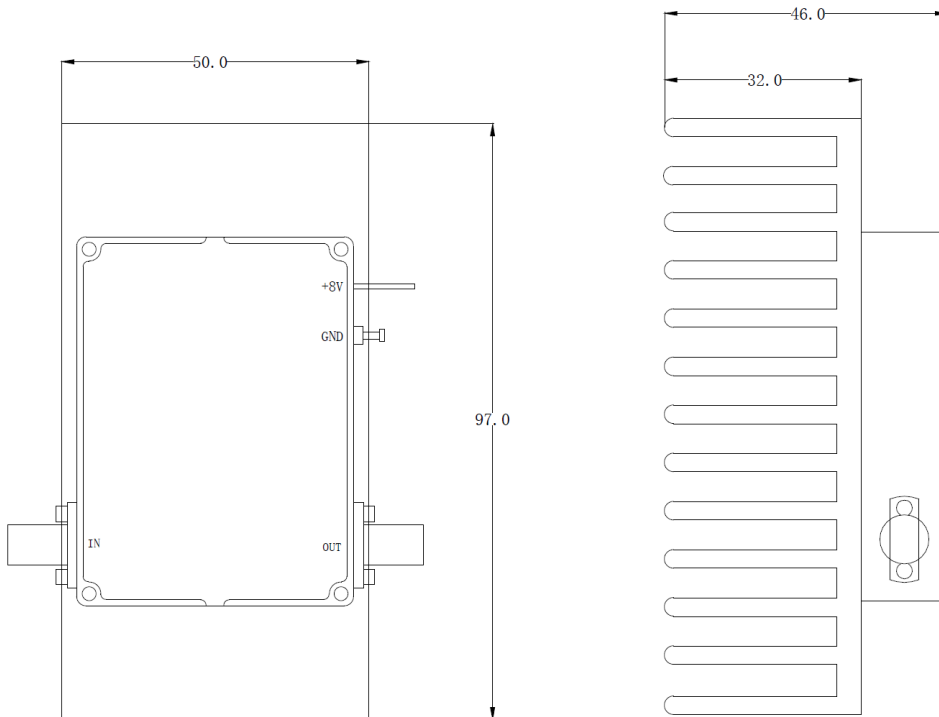


Dimension: (unit in mm)



	<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

