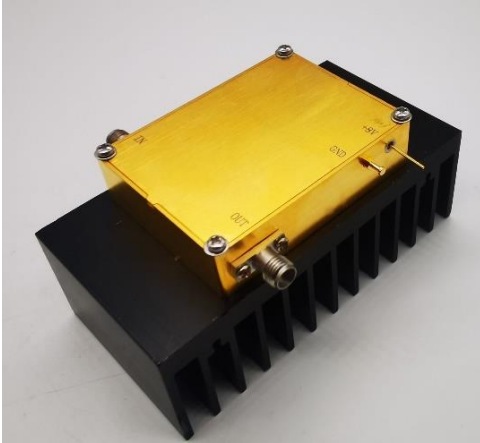


10MHz-22GHz Broadband Amplifier

2022-9-1



Product Overview

AT-PA-0022-4030A is broadband amplifier from 10MHz-22GHz, with $P_{out}=+30\text{dBm}$. The DC power requirement is $+16\text{V}/900\text{mA}$. The module is with SMA Female.

The high power makes it suitable for many applications. The broadband amplifier has high gain, high linearity, low input/output return loss and flat gain response. Bench-top test equipment type with 110-240V power supply is available according to request.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 10MHz-22GHz
- ✓ P_{sat} : +30dBm
- ✓ Small signal gain: 40dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		10MHz-22GHz	
Gain	38	40dB	
P1dB	+27dBm +25dBm	0.1-16GHz: +29dBm 16-22GHz: +27dBm	
Psat	+29dBm +27dBm	0.1-16GHz: +30dBm 16-22GHz: +28dBm	
NF(0.1-20GHz)		4dB	4.5dB
Drain Supply		+16V	+17
Current		0.9A	1.1A
Input Return Loss		-10dB	
Output Return Loss		-5dB	
Spec Temp		25C	





AT-BB-0022-4030A

10MHz-22GHz Broadband Amplifier

Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Package Sealing	Epoxy Sealed
Weight (Without Heatsink)	150g
Size:	60X45X14 mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+18V
RF Input Power	+13 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +160C

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.

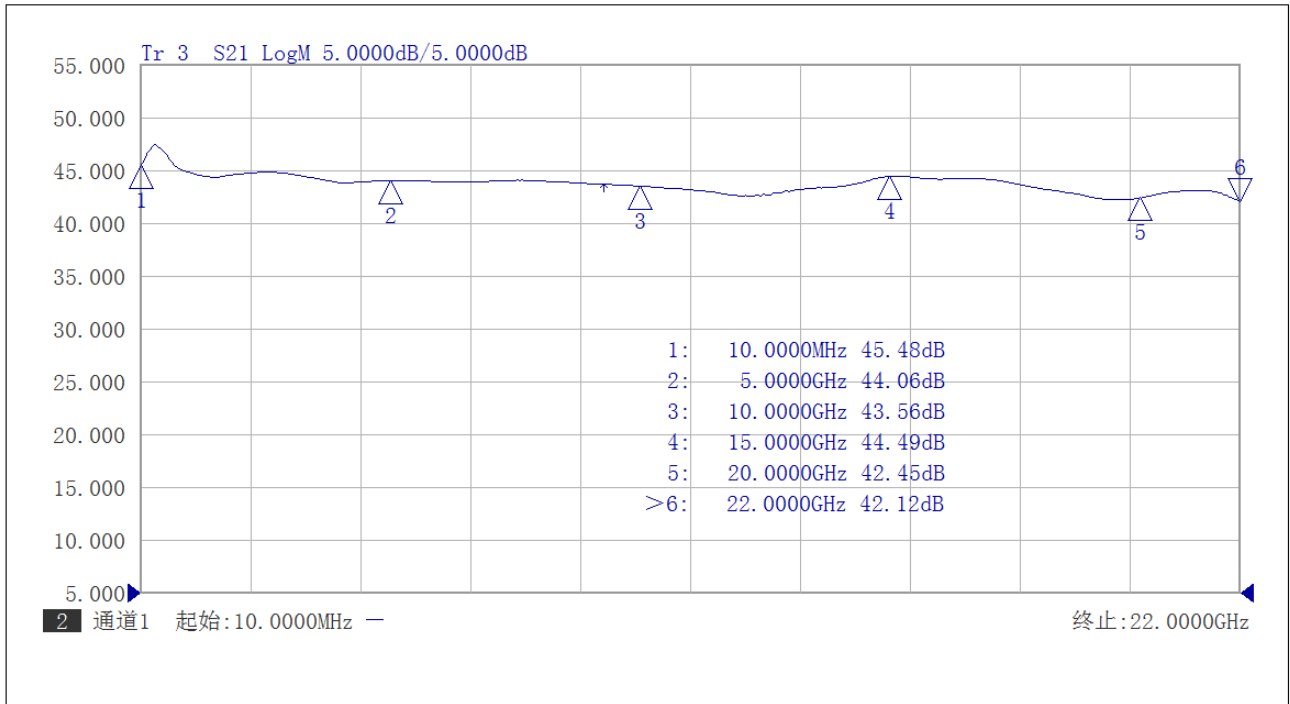
Notes:

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.

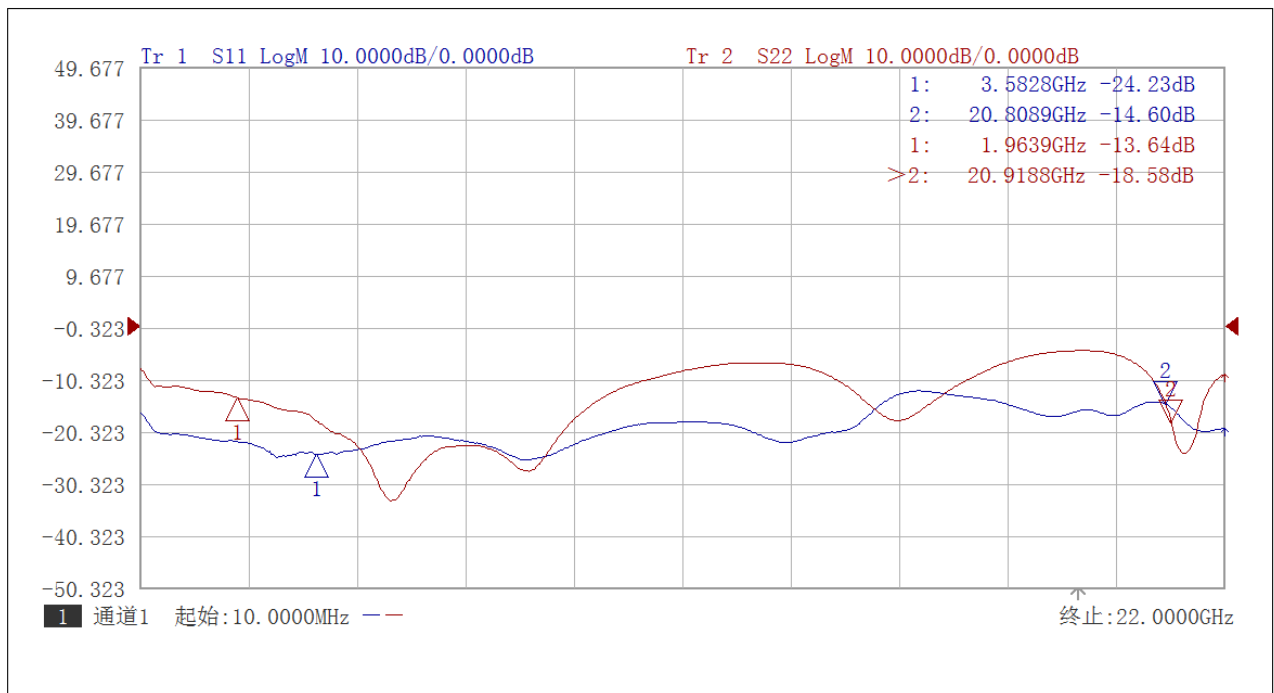


Test Data (25C)

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

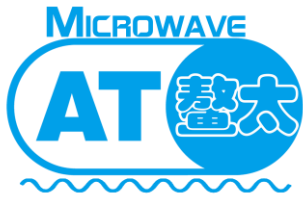


Gain vs Frequency



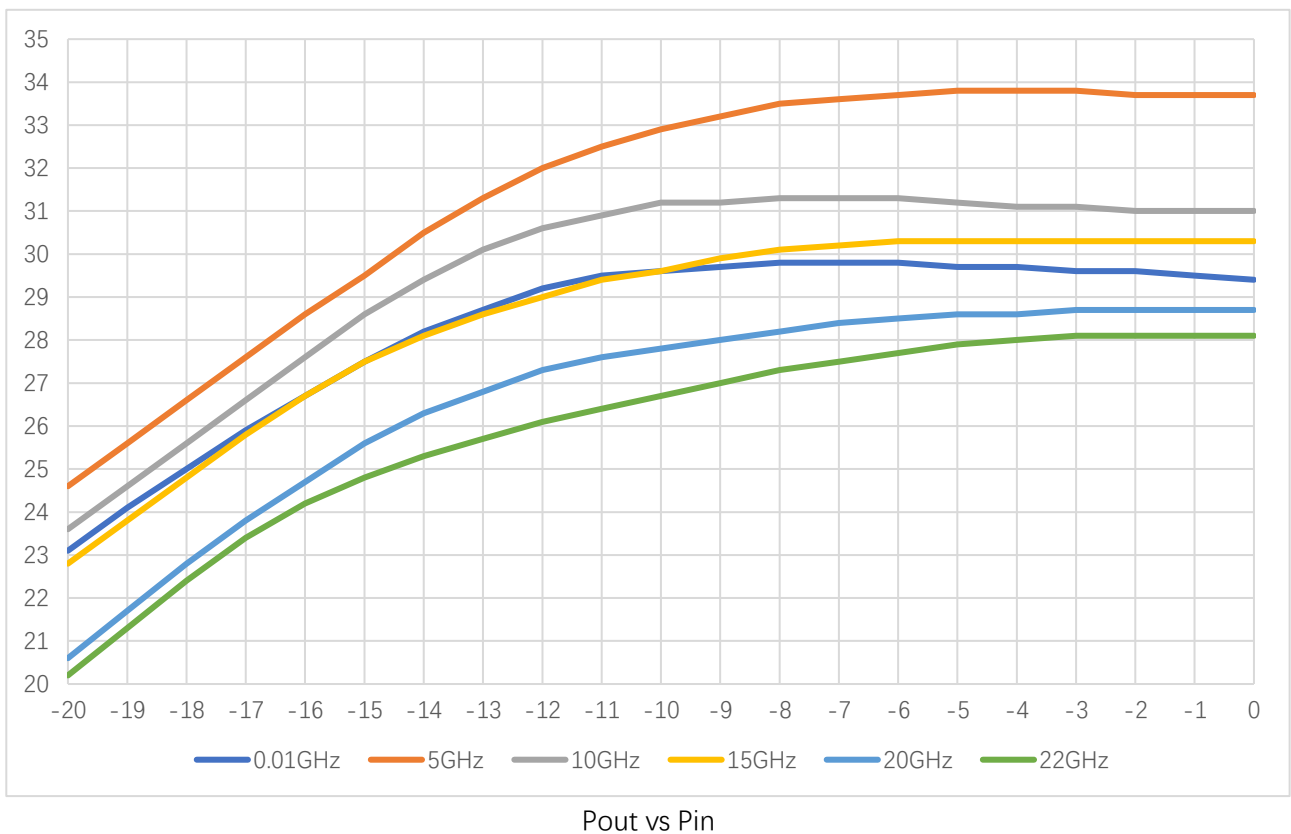
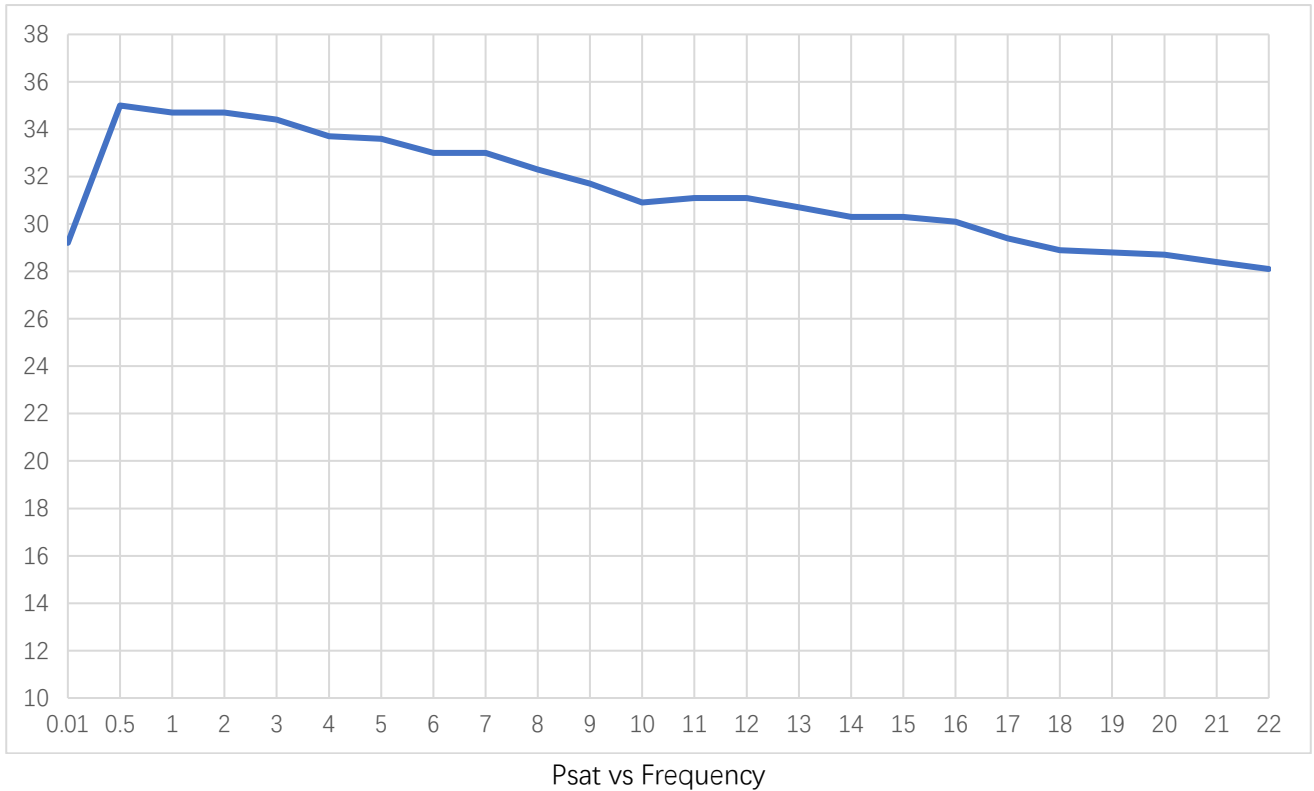
Return Loss vs Frequency



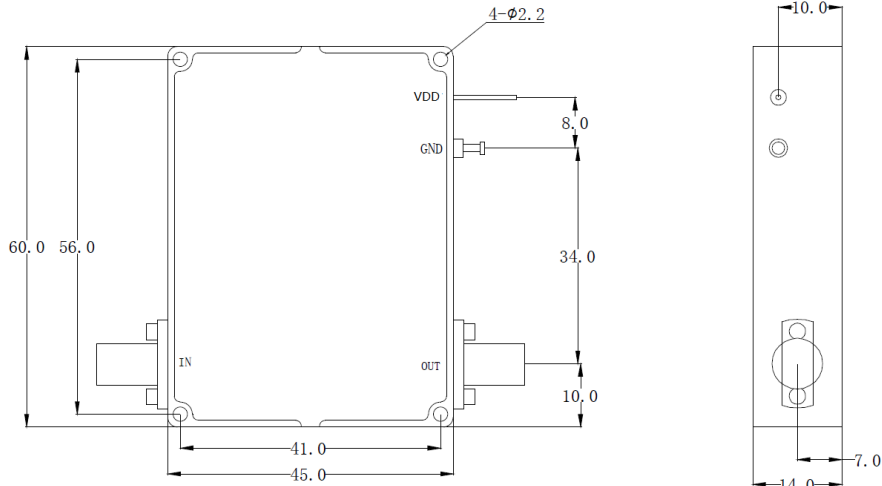


AT-BB-0022-4030A

10MHz-22GHz Broadband Amplifier

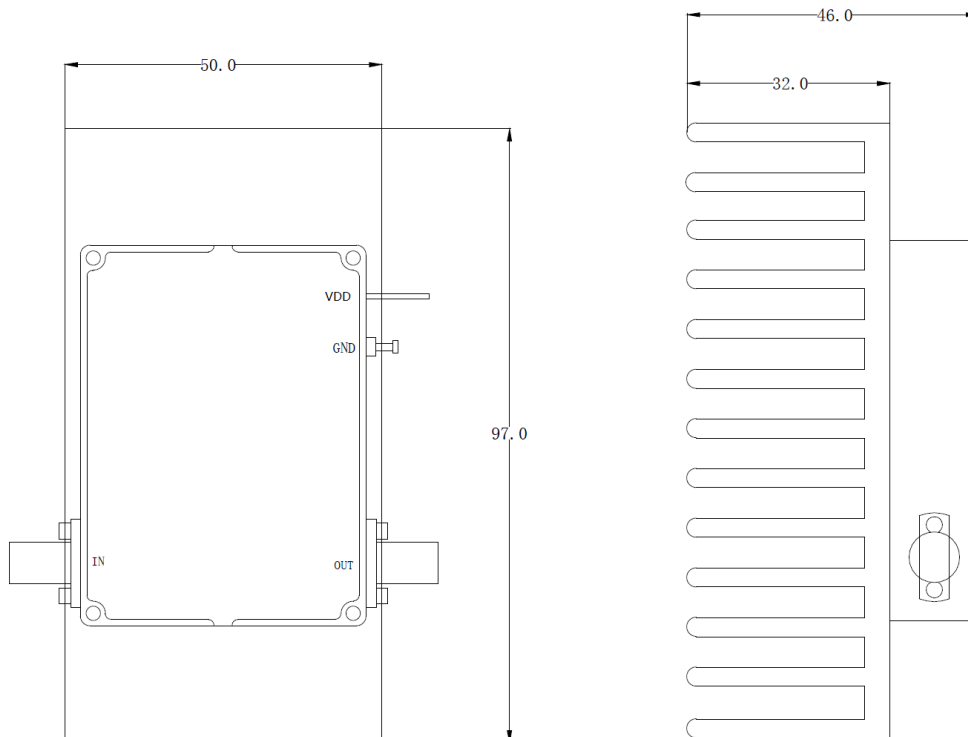


Dimension: (unit in mm)



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Length 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 if case Temp higher than 50C

