

## 18-42GHz Broadband Amplifier, Gain=15dB, Pout=+23dBm, 2.92mm Female



### Product Overview

AT-PA-1842-1523X is high gain power amplifier with +23dBm output power in the frequency of 18-42GHz. The DC power requirement is +8V/400mA. The module is with 2.92mm 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](http://www.atmicrowave.com)

### Advantages

- ✓ Frequency: 18-42GHz
- ✓ Pout:+23dBm
- ✓ Small signal gain: 15dB
- ✓ Single Power Supply

### Application

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

### Key Features

Parameter	Min	Typical	Max
Frequency		18-42GHz	
Gain	13dB	15dB	
Gain Flatness		+/-1.5dB	+/-2.5dB
P1dB	+20dBm	+21dBm	
Psat	+21dBm	+23dBm	
Drain Supply		+7 to 12V	
Current		400 mA	500mA
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





# AT-PA-1842-1523X

## 18-42GHz Power Amplifier

### Mechanical Information

Item	Description
Input Port	2.92mm Female
Output Port	2.92mm Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	90g
Size:	30x30x14 mm

### Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+18 dBm
Operating Temperature	-40 to +85C
Storage Temperature	-50 to +125C

### 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.

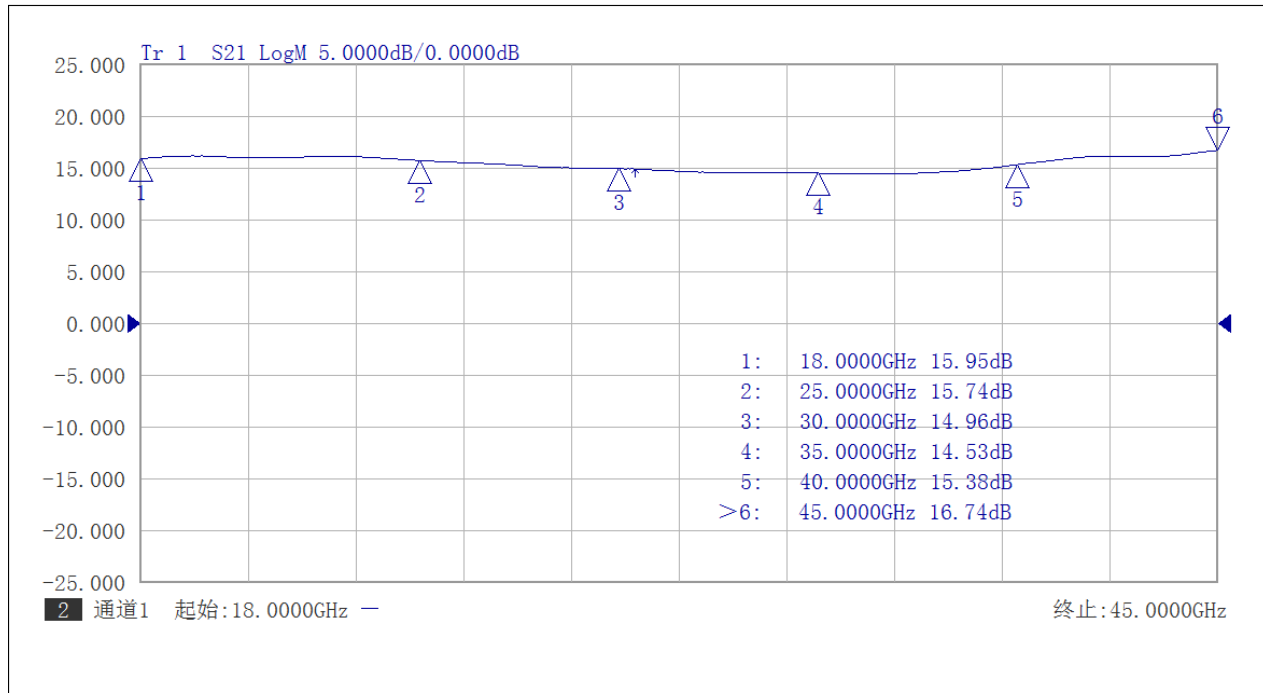
### Part Number Selection Guide

Item	Description
AT-PA-1842-1523X	Standard Module with DC Power Supply
AT-PA-1842-1523X <b>-LCBT</b>	<b>L</b> ow Cost, <b>C</b> ompact <b>B</b> ench- <b>T</b> op, +220V Supply with AC/DC Adapter

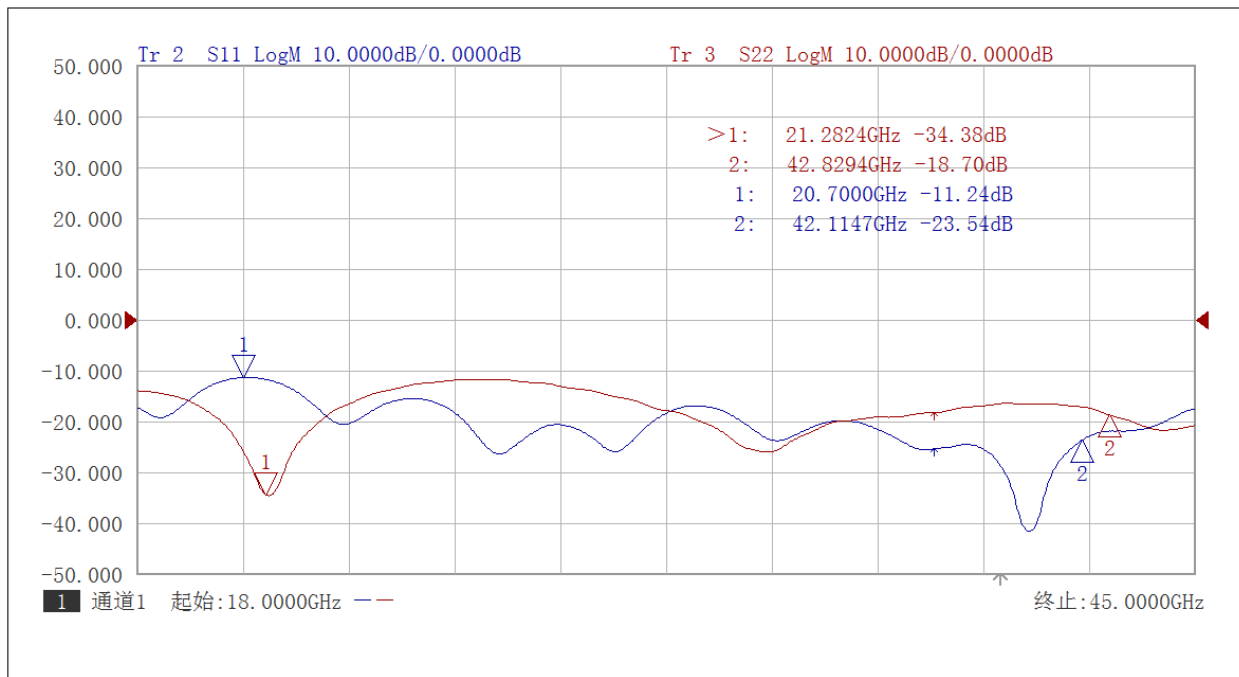


## Test Data (25C)

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



Gain vs Frequency



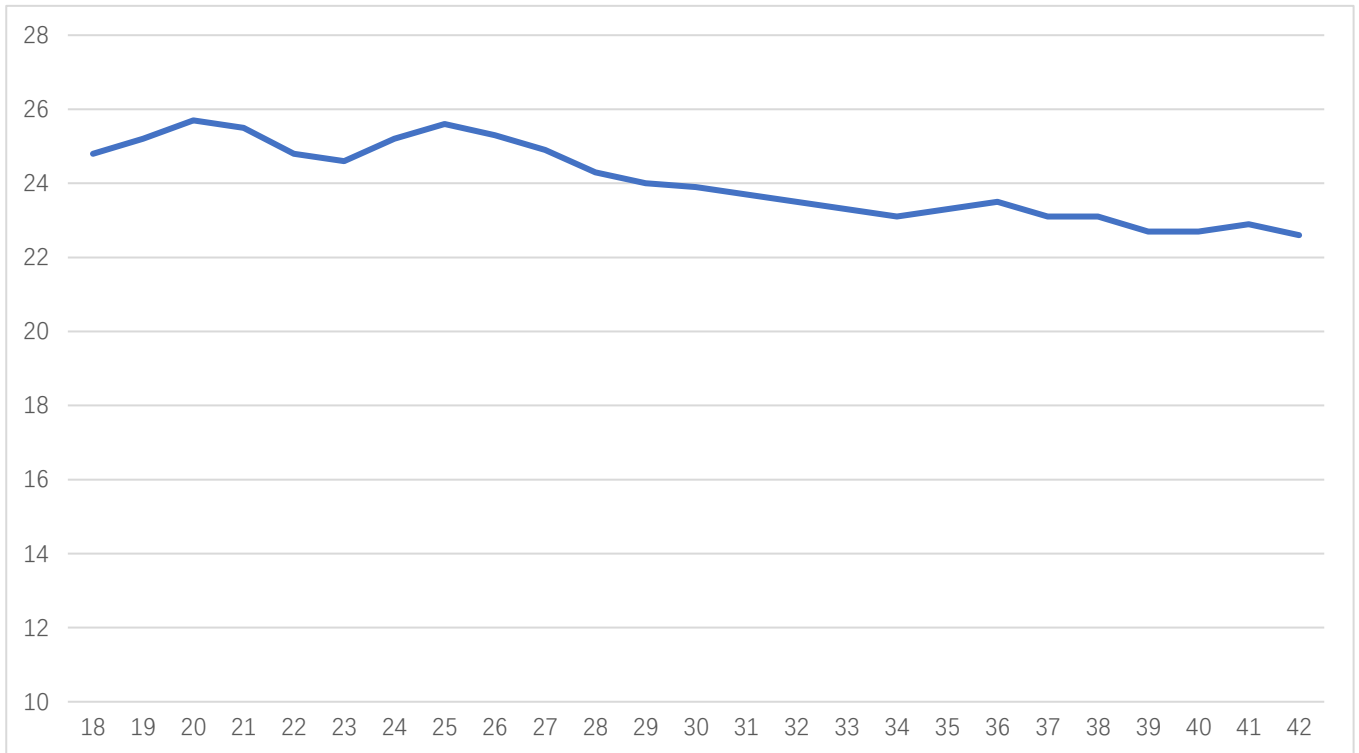
Return Loss vs Frequency



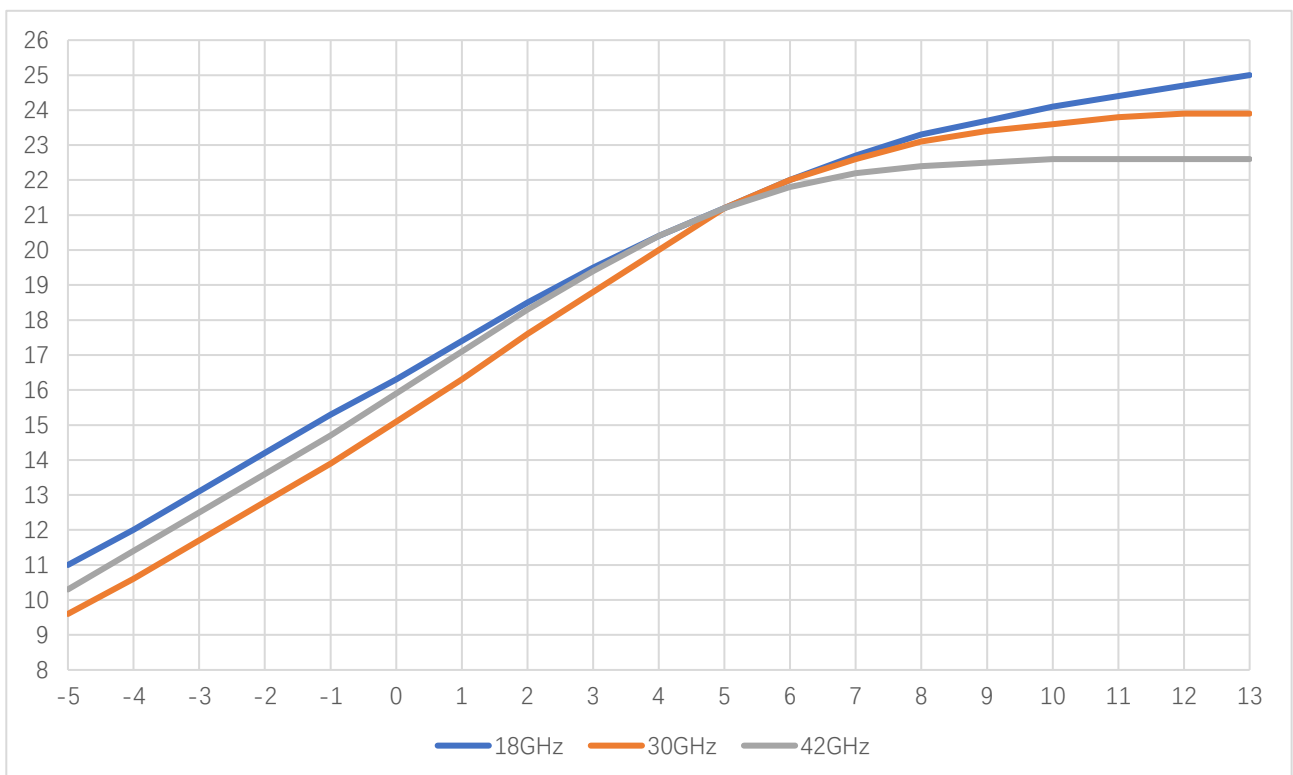


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18-42GHz Power Amplifier



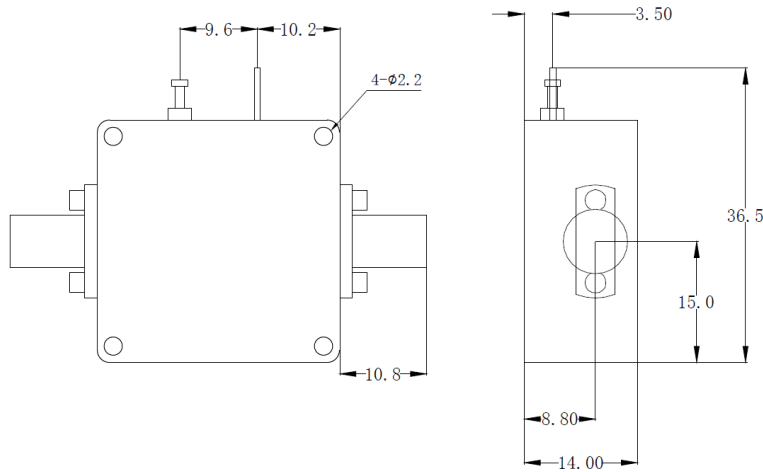
Psat vs Frequency



Pout vs Pin

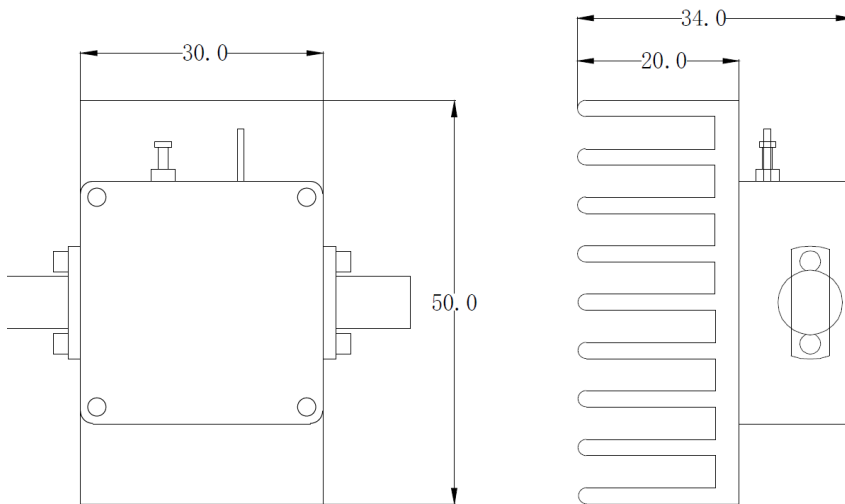


### Dimension: (unit in mm)



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

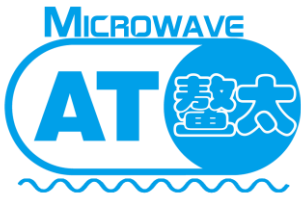
Note: Female Default. Contact with us for other types.



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

Heat Sink Required During Operation if case Temp higher than 50C





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-LCBT Option Dimension: (unit in mm)

