

## 6-18GHz GaAs High Power Amplifier

### Gain=35dB, Pout=+36dBm

2023-11-8



-LCBT Option

#### Product Overview

AT-HPA-0618-3536N is GaAs Based high gain power amplifier with +36dBm output power in the frequency of 6-18GHz. Both AC and DC power supply can be used.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response. There are heatsink and fan in default for this amplifier.

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

#### Advantages

- ✓ Frequency: 6-18GHz
- ✓ Psat:+36dBm
- ✓ Small signal gain: 35dB
- ✓ Single Power Supply

#### Application

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

#### Key Features

Parameter	Min	Typical	Max
Frequency		6-18GHz	
Gain	33	35dB	
Gain Flatness		+/-4dB	
P1dB		+34dBm	
Psat		+36dBm	
DC Power Supply		+12V	+15V
Idd/NO RF		1.0A	
IDD/ Psat		2.5A	3.2A
Input Return Loss		-12dB	
Output Return Loss		-8dB	
Spec Temp		25C	





# AT-HPA-0618-3536N

## 6-18GHz High Power Amplifier

### Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight	Module: 180g LCBT Option: 1.5KG
Size:	See outline

### Absolute Maximum Ratings Table

Parameter	Value
DC Power Supply	+24V
RF Input Power	+20 dBm
Operating Temperature	-40 to +70C
Storage Temperature	-45 to +85C

### 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.

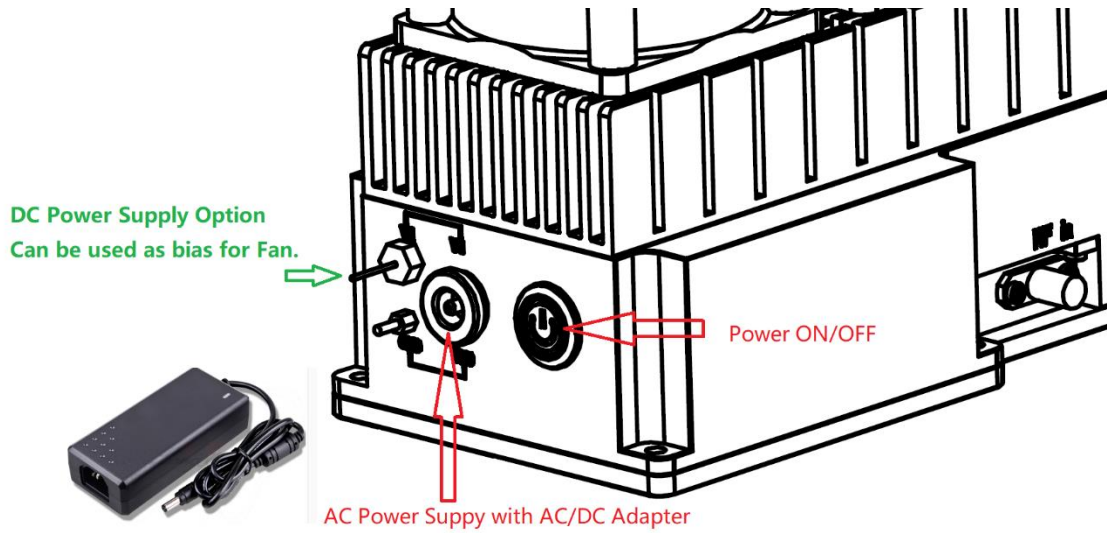
### Part Number Selection

Item	Description
AT-HPA-0618-3536N	Standard products without heatsink and Fan. Customer must apply Heatsink and Fan by themselves.
AT-HPA-0618-3536N <b>-LCBT</b>	<b>L</b> ow Cost, <b>C</b> ompact <b>B</b> ench- <b>T</b> op, Heatsink included. +24V for DC Power Supply Option. +220V Supply with AC/DC Adapter
AT- <b>BT</b> HPA-0618-3536N	Bench-top Option 220V AC Power Supply Directly.



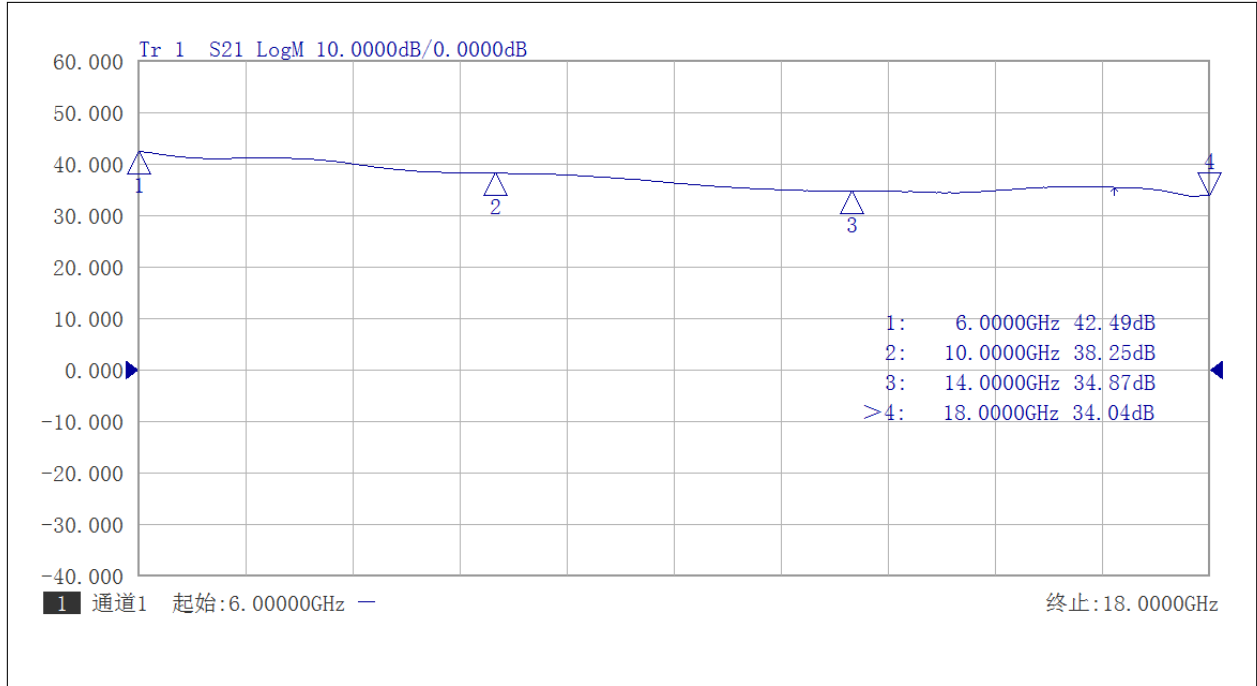
## -LCBT Option Power Supply Guide.

1. AC Power supply with AC/DC Adapter; PIN VDD Output=+24V, can be used for Fan bias.
2. DC Power Supply from PIN VDD.
3. AT Microwave provide AC/DC adapter, heatsink and Fan in default for -LCBT Option.
4. **Never apply AC Bias and DC Bias at same time.**

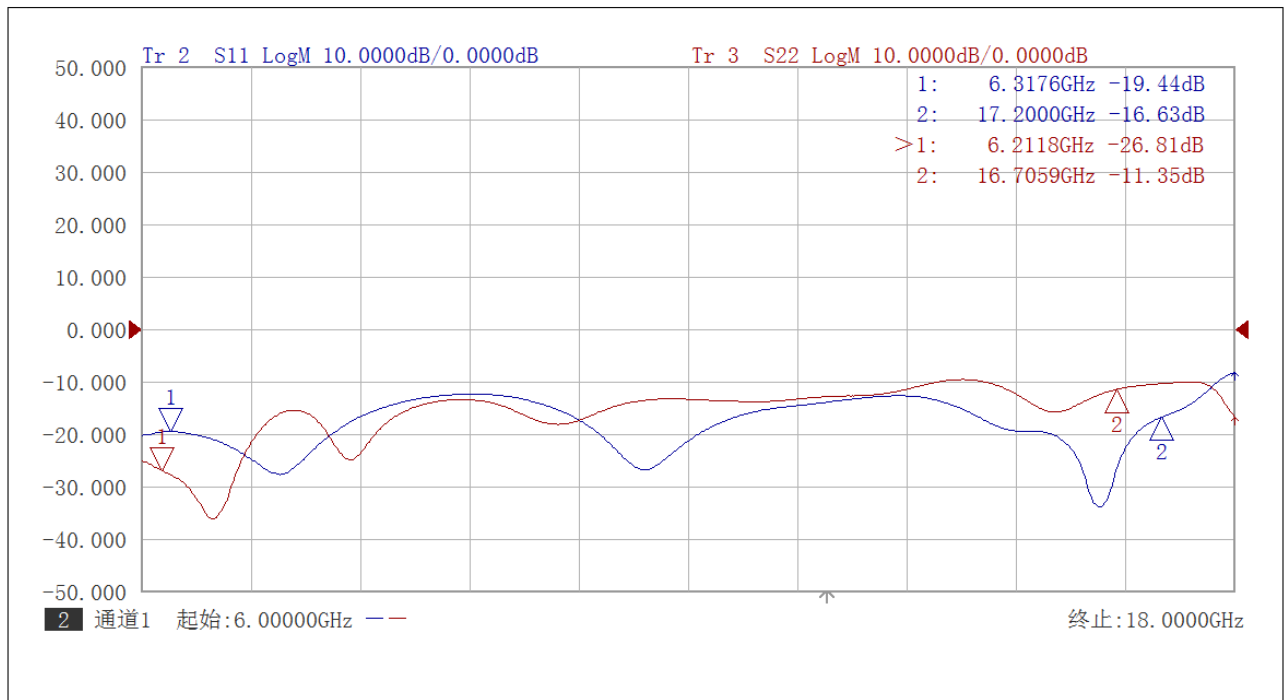


### Test Data (25C)

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

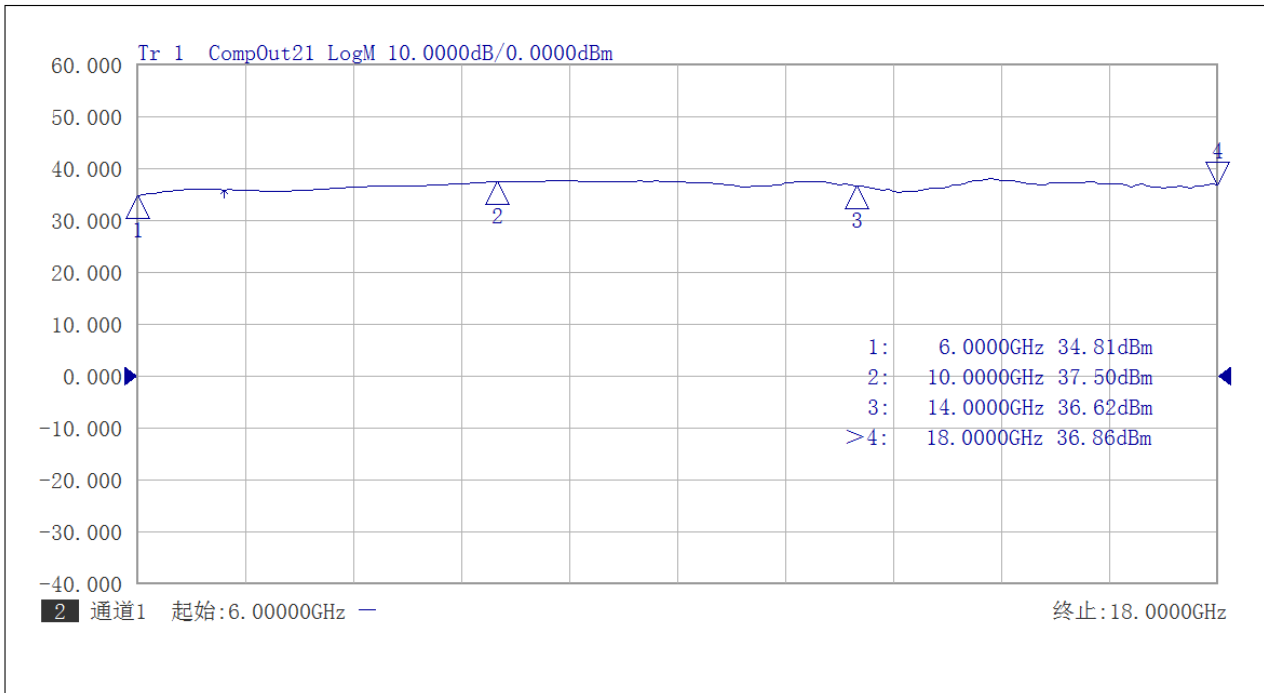


Gain vs Frequency

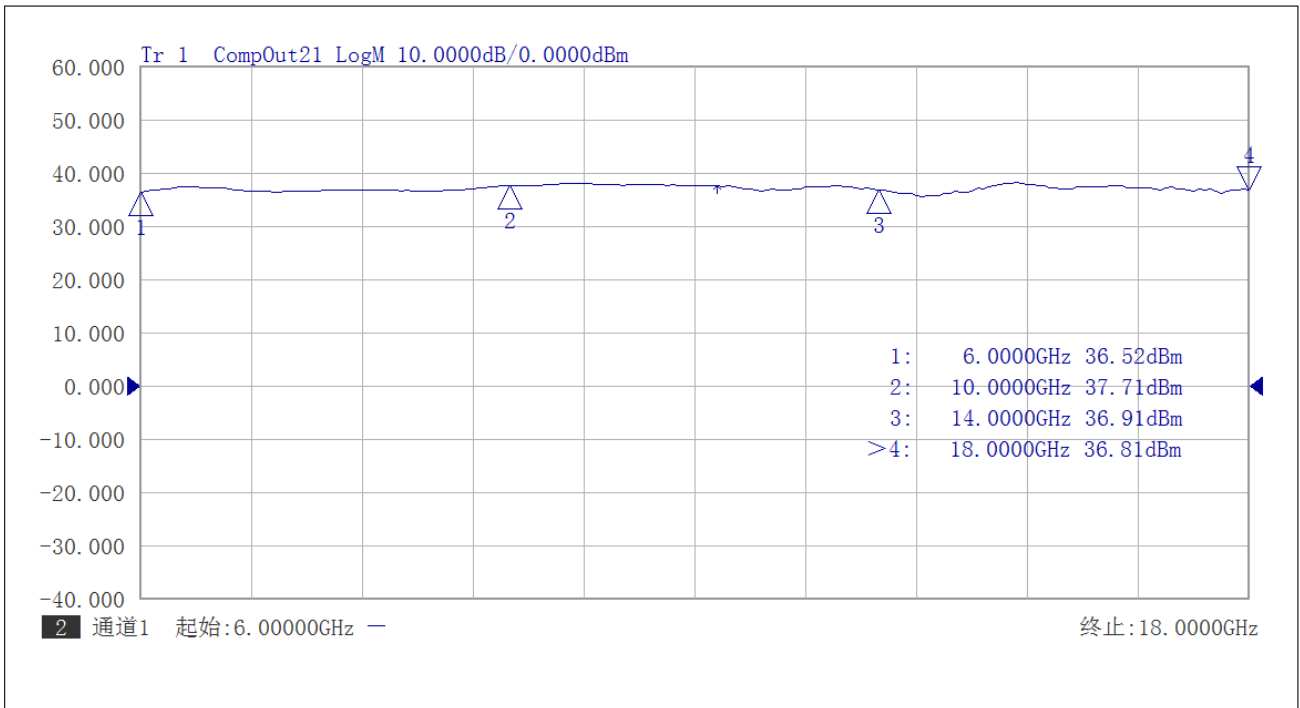


Return Loss vs Frequency



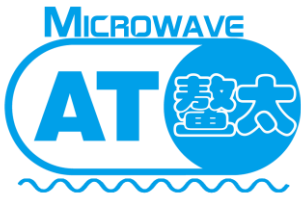


P1dB vs Frequency



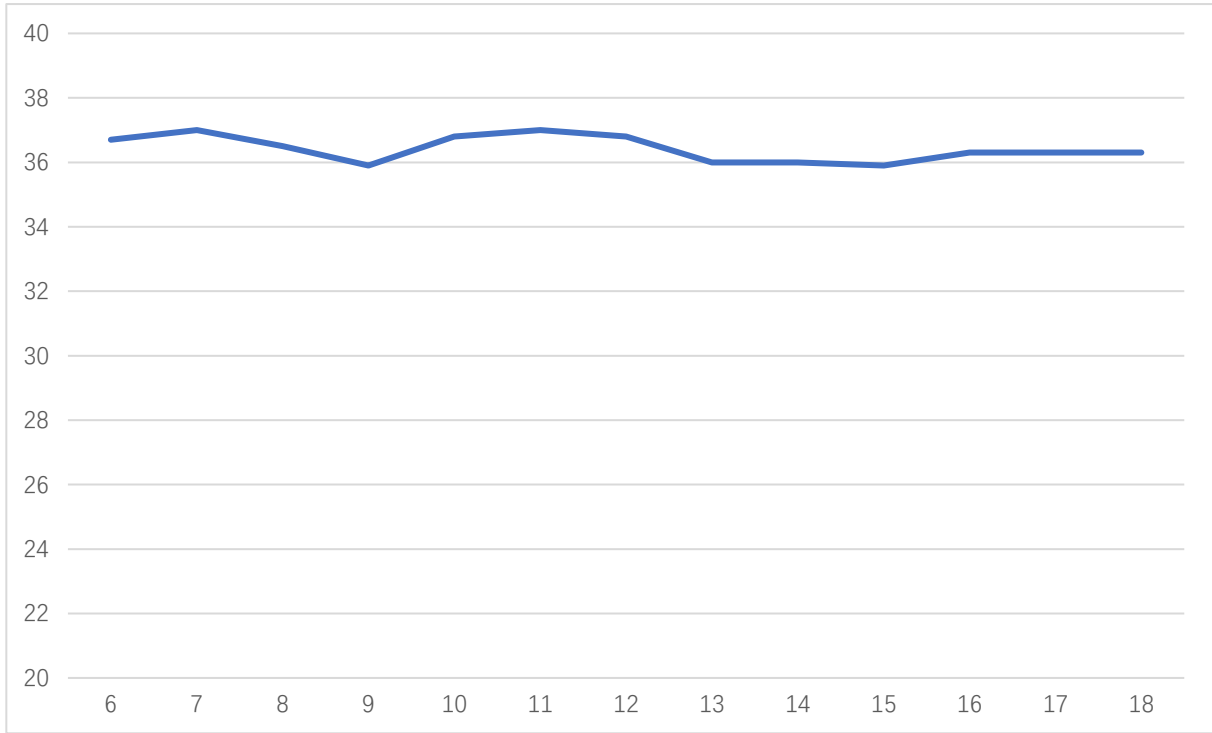
P3dB vs Frequency



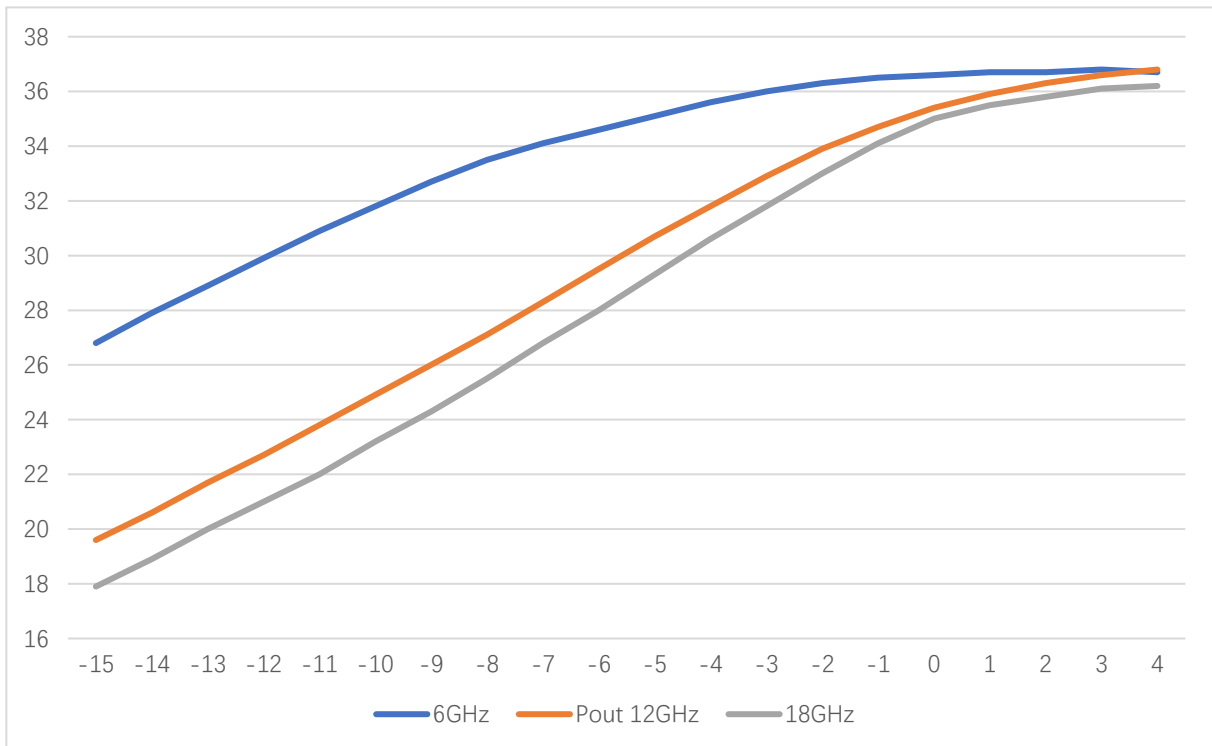


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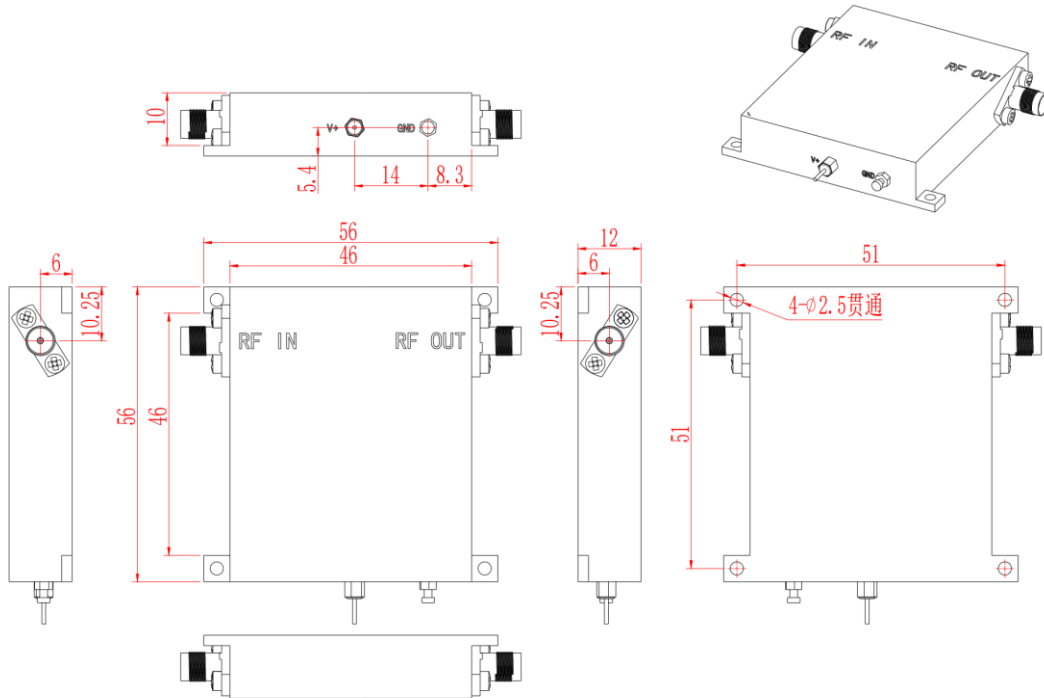
Psat and IDD vs Frequency



Pout vs Pin at 6/12/18GHz



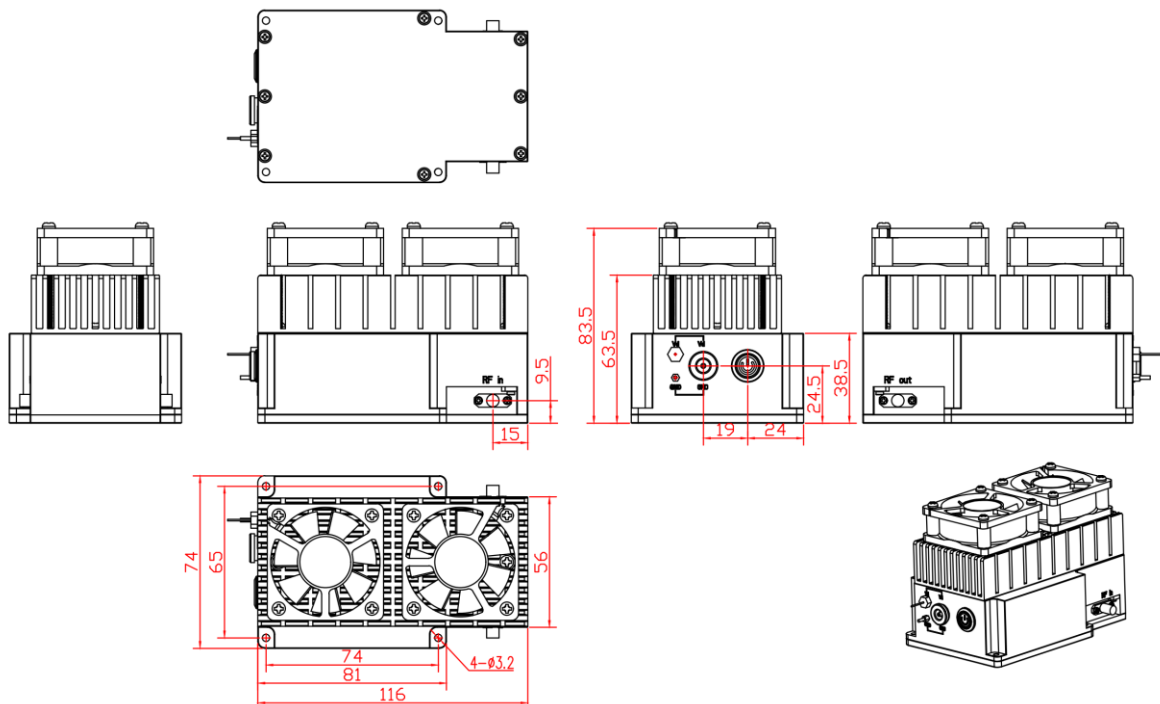
## Dimension: (mm)



Please note that the standar option is not included heatsink and Fan.

**Heatsink and Fan required during operation.**

## -LCBT Dimension: (mm)



## -BT Bench-top Dimension (unit mm)

