

W Band Power Amplifier



Product Overview

AT-PA-85100-1226 is power amplifier with +26dBm output power in the frequency of 85-100GHz. The DC power requirement is +5V/1600mA. The module is with a standard WR-10 waveguide.

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: 85-100GHz
- ✓ Psat:+26dBm
- ✓ Small signal gain: 12dB
- ✓ Single Power Supply

Application

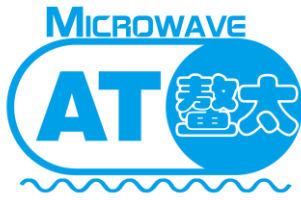
- ✓ W band Imaging
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		85-100GHz	
Gain	10	12dB	
Drain Supply		+5V	+6V
Quiescent Current/A (NO RF)		1.53A	
PSAT Current/A		1.6A	
Psat	+24	+26dBm	
Input Return Loss		-7dB	
Output Return Loss		-7dB	
Temp Spec		25C	

Note: Heatsink and fan are required.





AT-PA-85100-1226

85-100GHz Power Amplifier, $P_{sat}=+26\text{dBm}$

Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	221g
Size:	57.5x33x22.4mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+7V
RF Input Power	+20dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

Caution:

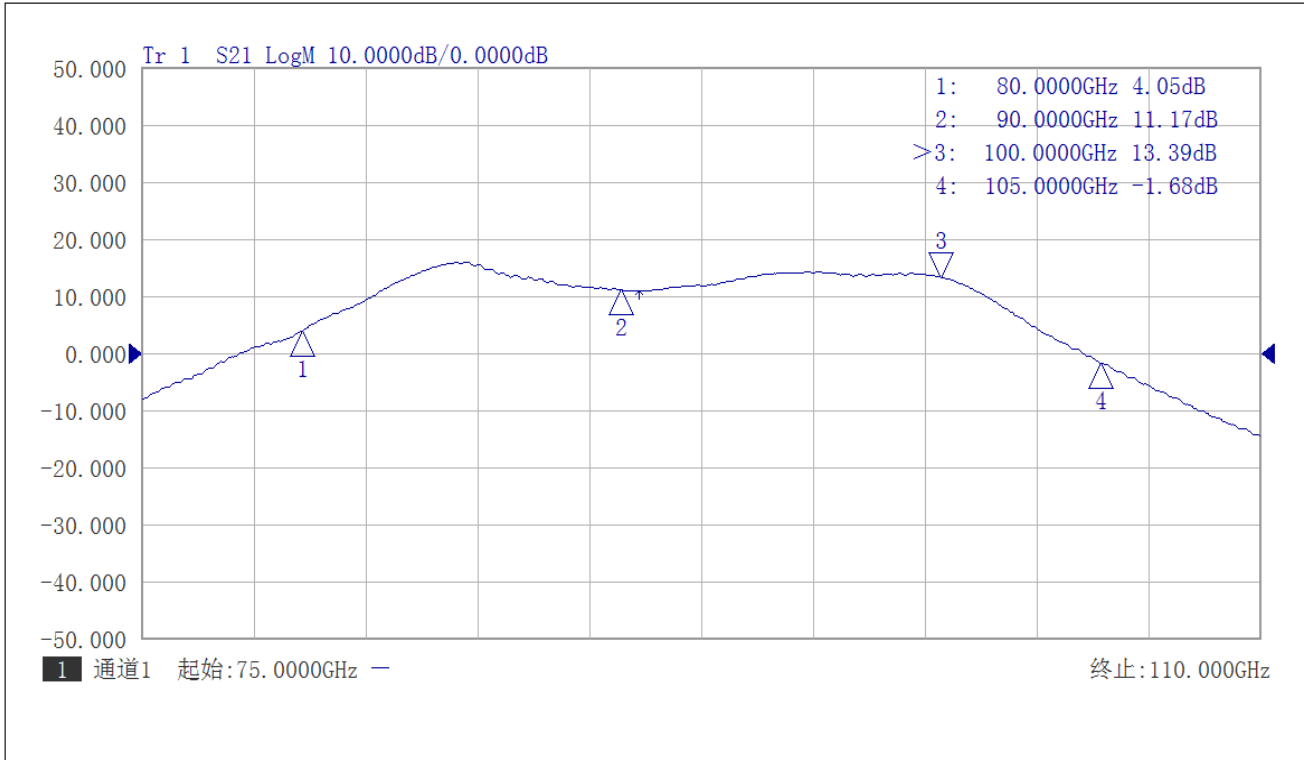
Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

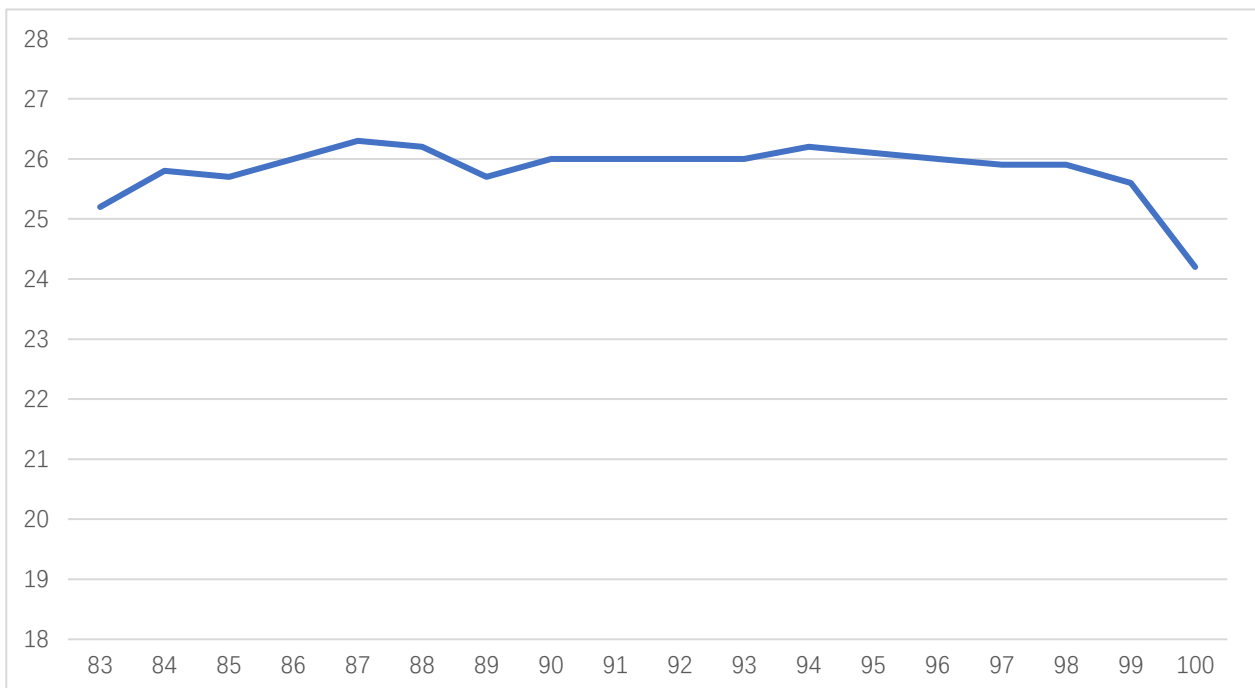
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



TEST DATA



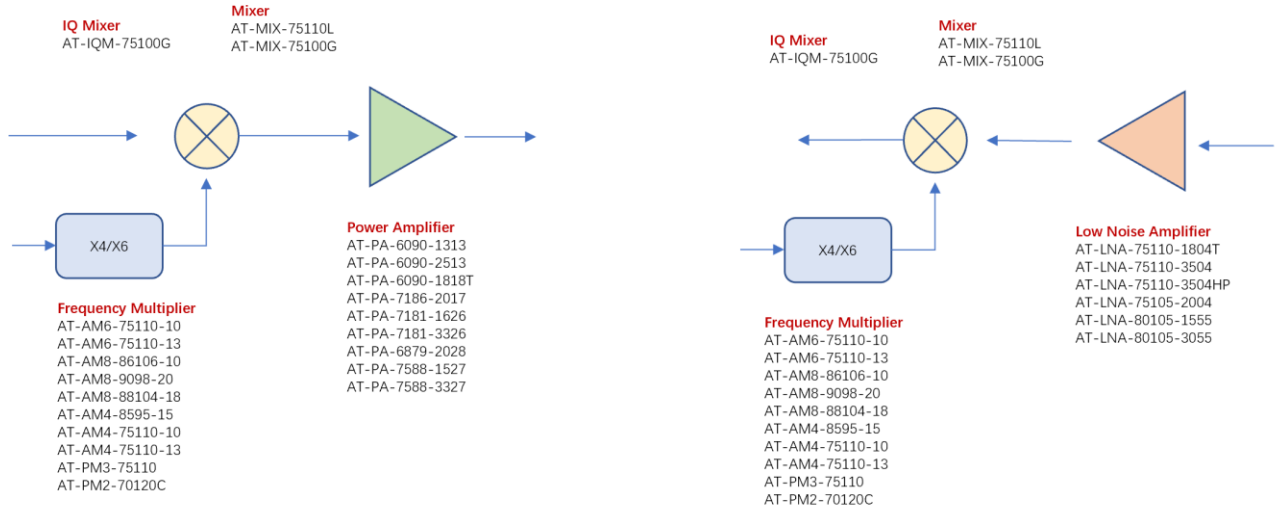
Small Signal Gain



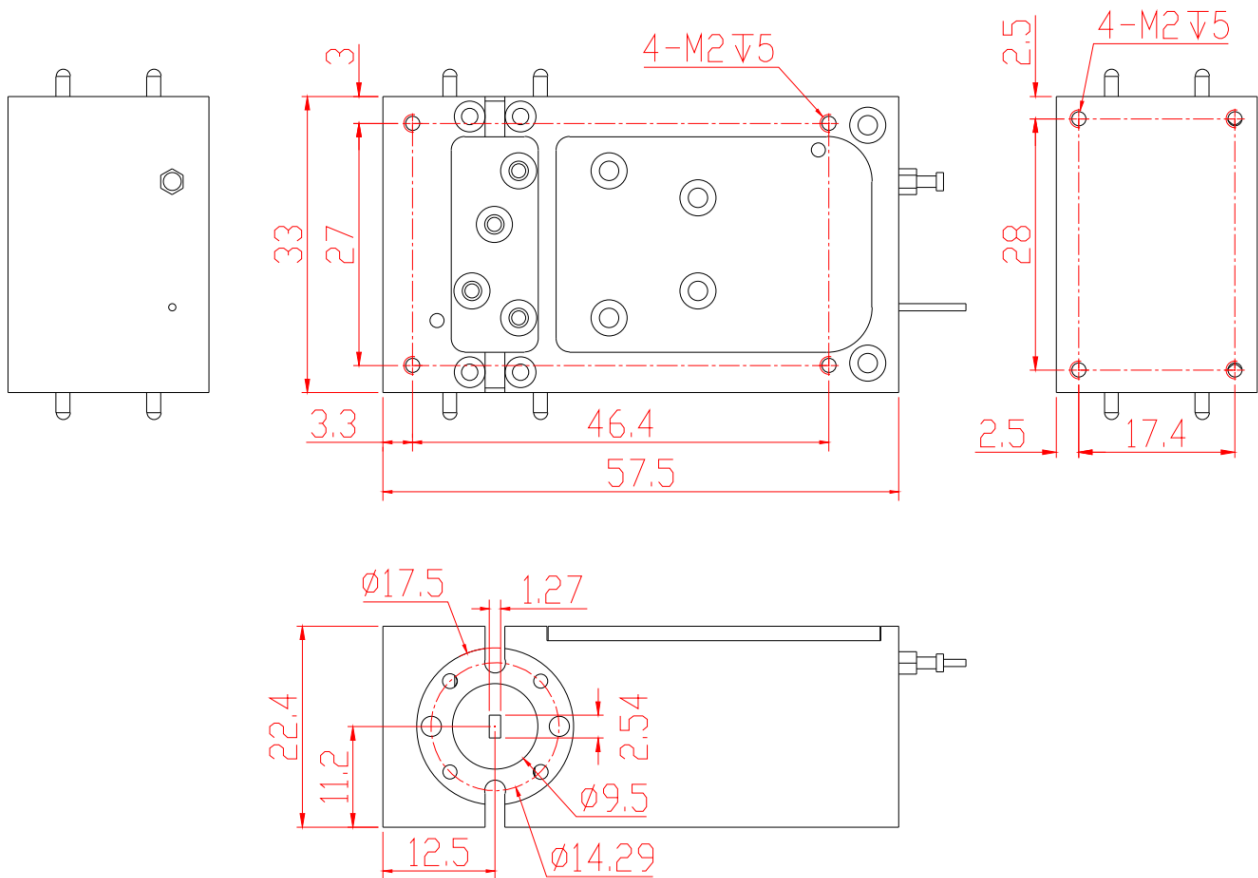
Psat vs Frequency at Pin=+18dBm



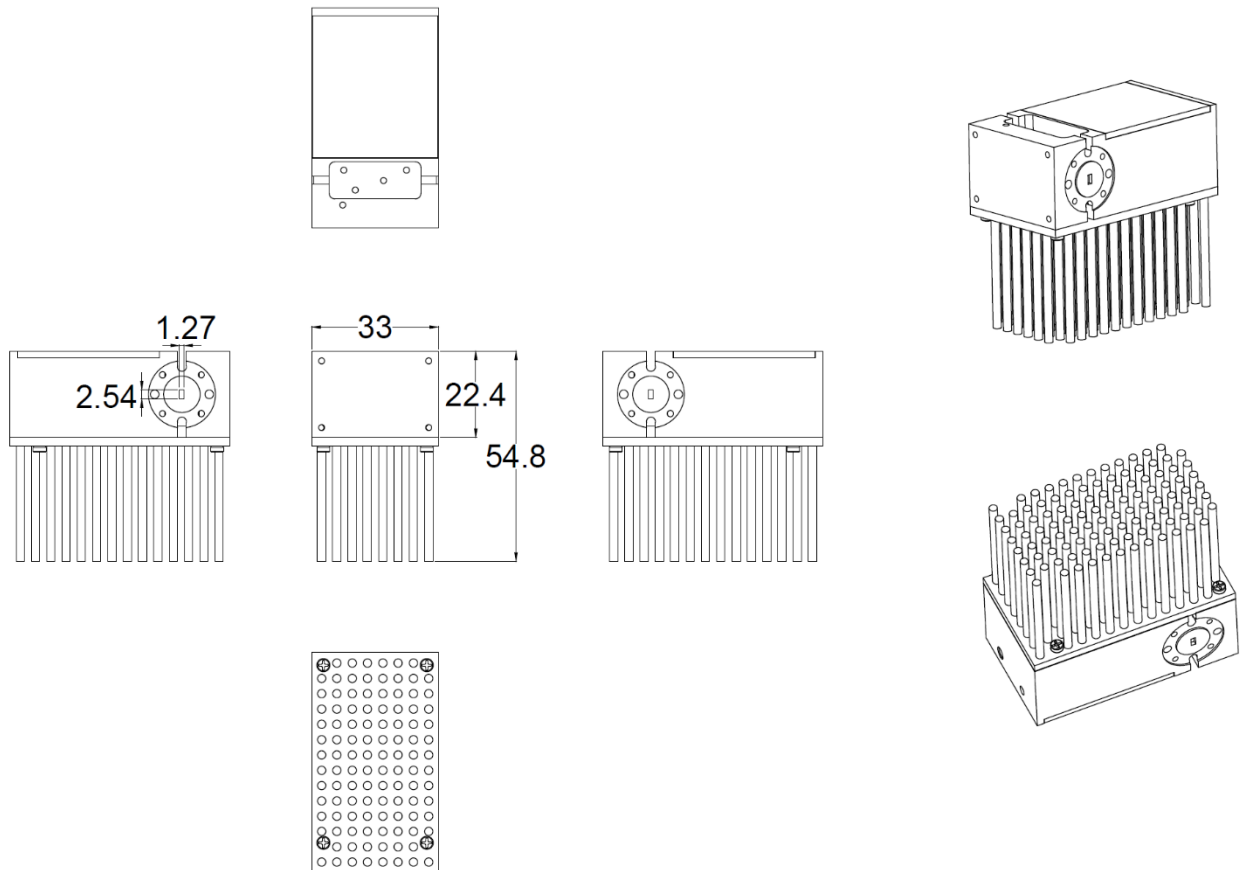
W BAND 75-110GHZ



Dimension:(unit in mm)



Dimension with heatsink:(unit in mm)



Dimension with Heatsink

AT Microwave provides a heatsink in default if P_{out} is higher than $+20\text{dBm}$.
Customer can remove the heatsink easily and use their own heatsink if need.

