



AT-PA-7590-3327-C10

75-90GHz Power Amplifier, Psat=+27dBm

W Band High Gain, High Power Amplifier



Product Overview

AT-PA-7590-3327-C10 is high gain high power amplifier with +27dBm output power in the frequency of 75-90GHz. The DC power requirement is +5V, with current 1.8A at NO RF and 2.7A at Psat. 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: 75-90GHz
- ✓ Psat: +27dBm
- ✓ Small signal gain: 33dB
- ✓ Single Positive Supply

Application

- ✓ E Band Point to Point Communication
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		75-90GHz	
Gain	30	33dB	
Drain Supply		+5V	+6V
P1dB		+25dBm	
Psat	+25	+27dBm	
Idd/NO RF		1.8A	
Idd/Psat		2.7A	3A
Input Return Loss		-7 dB	
Output Return Loss		-5 dB	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	270g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+7V
RF Input Power	+12dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

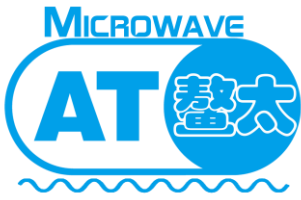
Caution:

Please pay attention to the case temperature. If case temperature exceeds 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.

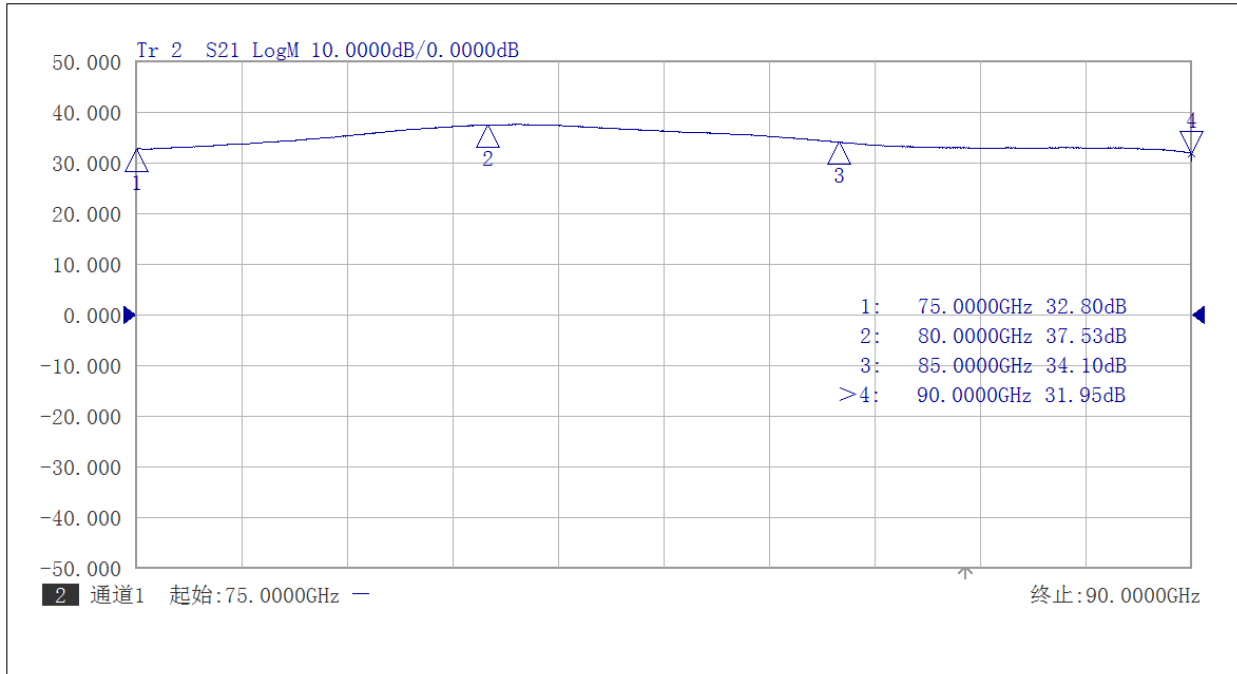




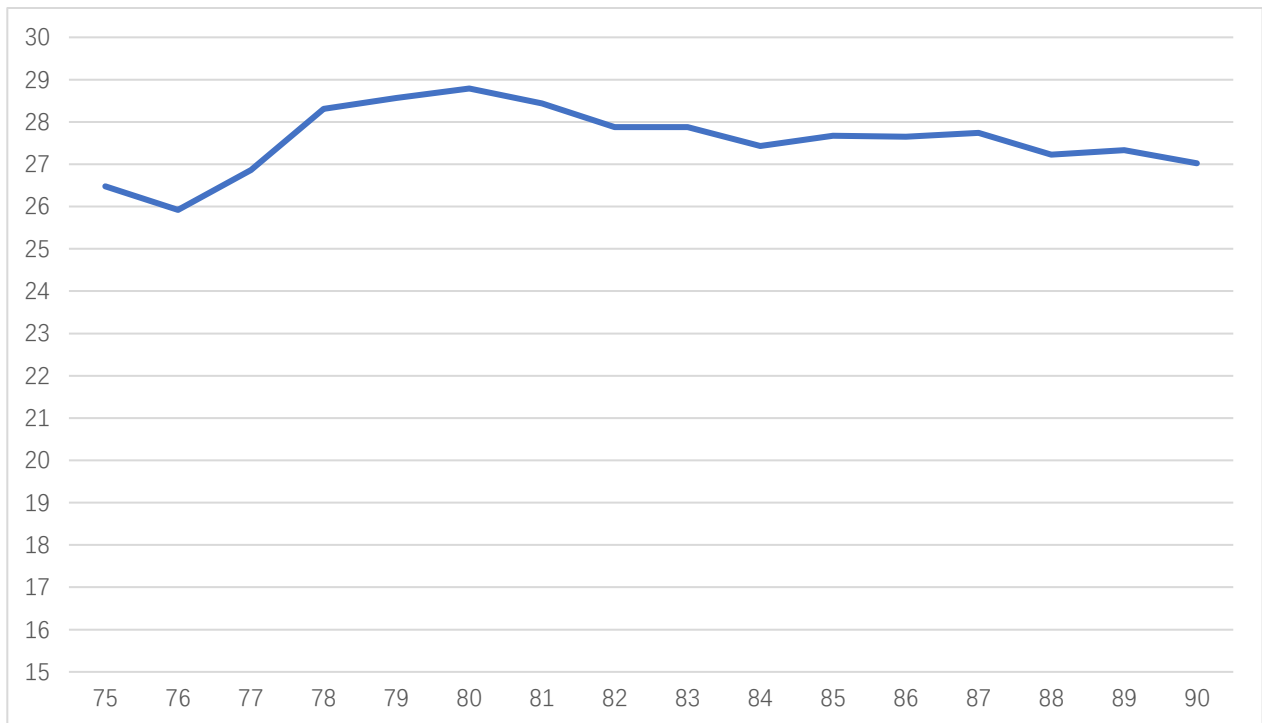
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Test Data

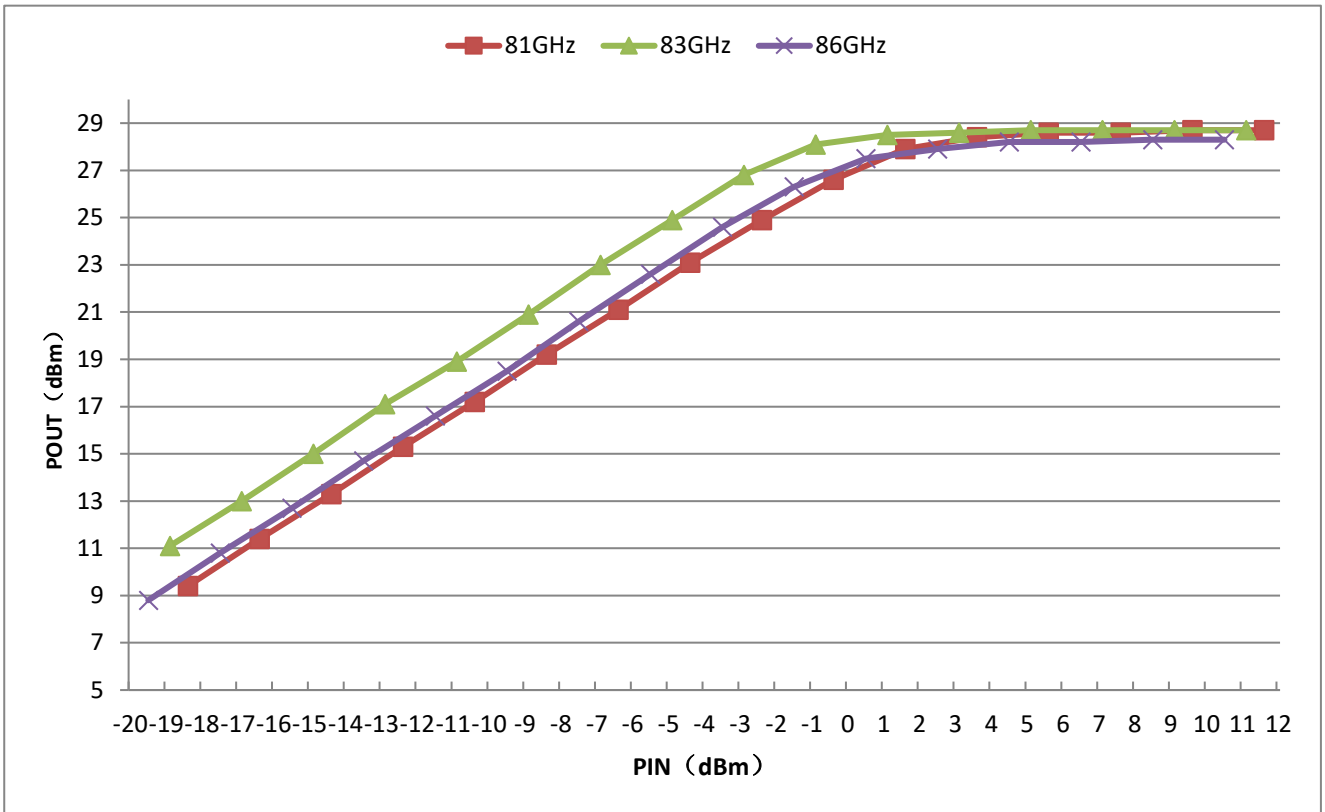


Gain vs Frequency 75-90GHz



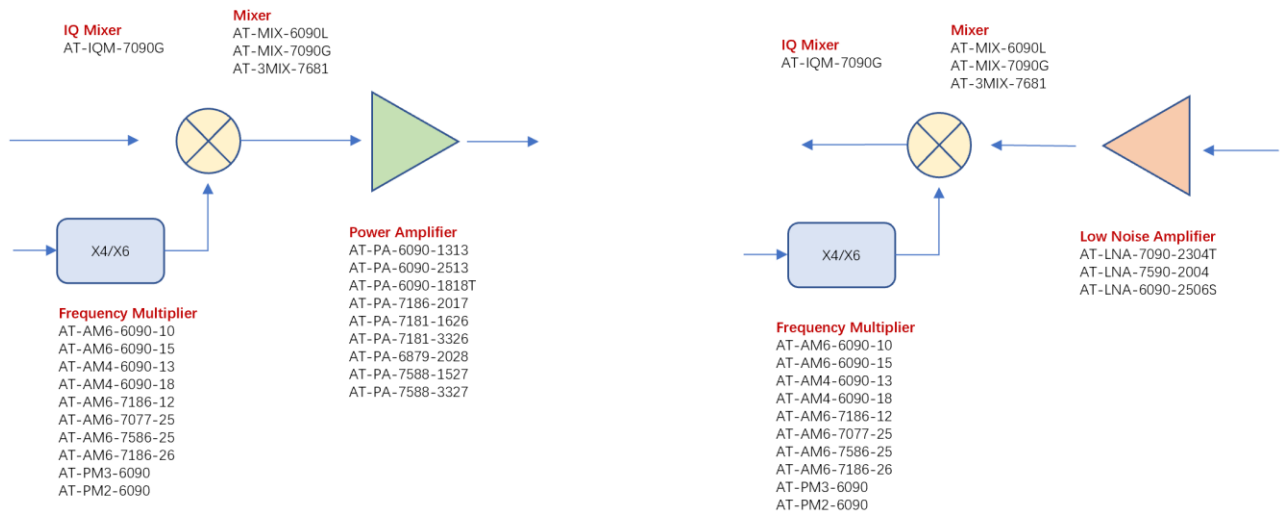
Psat vs Frequency



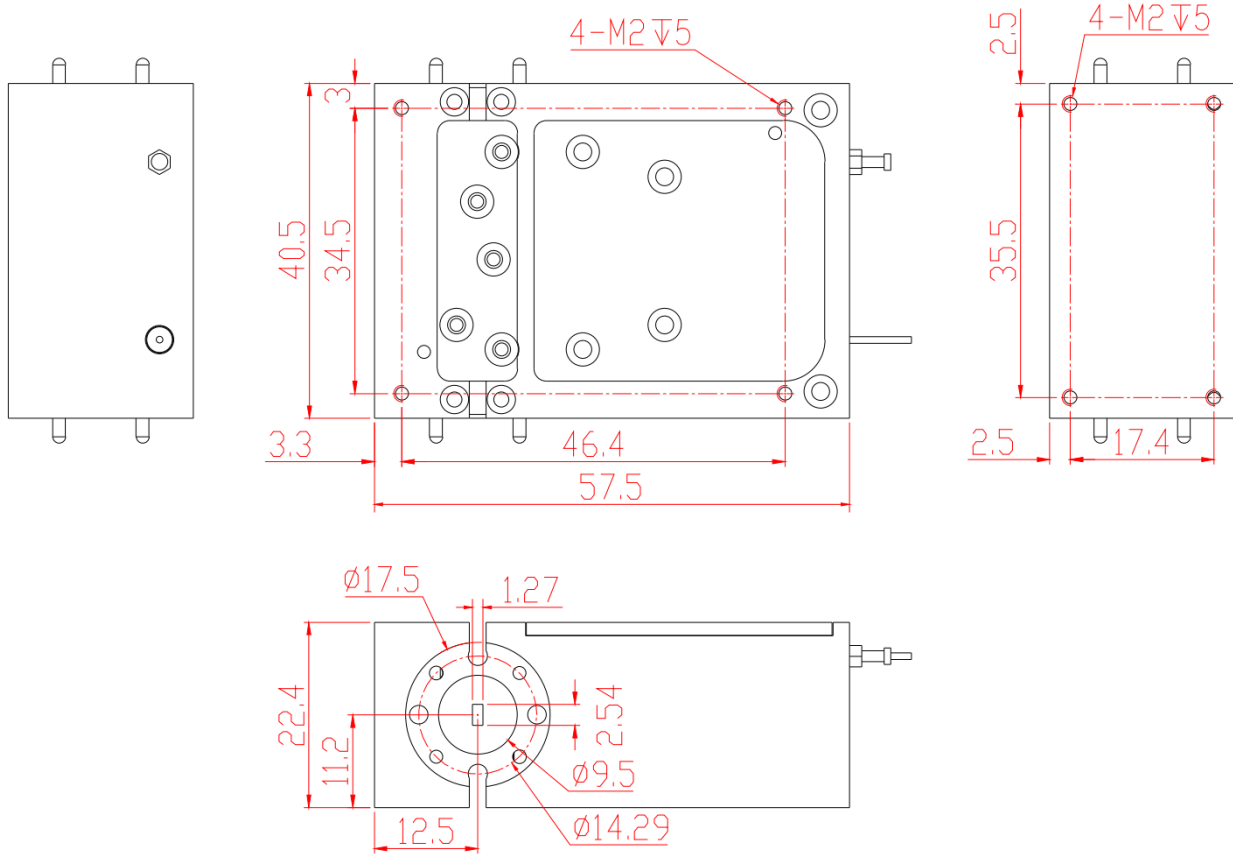


Pout vs Pin at 81/83/90GHz

E Band 60-90GHz

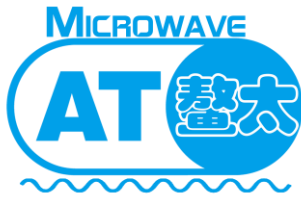


Dimension:(unit in mm)



Heatsink required during operation

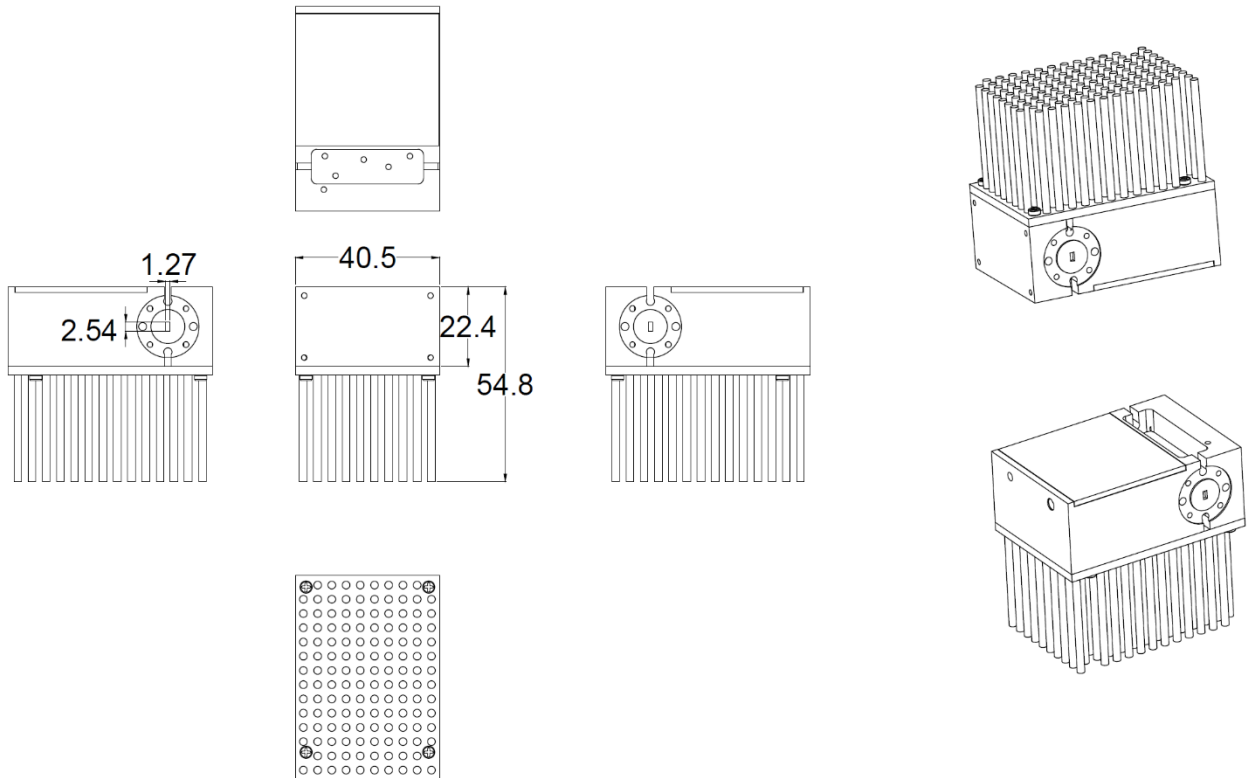




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75-90GHz Power Amplifier, $P_{sat}=+27dBm$

Dimension with heatsink:(unit in mm)



Dimension with Heatsink

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

