



AT-PA-75110-2729GN

75-110GHz Power Amplifier, Psat=+29dBm

Full W Band Power Amplifier, WR-10

2023-5-22

High Gain=27dB , Psat=+29dBm



Product Overview

AT-PA-75110-2729GN is 27dB high gain power amplifier with +29dBm output power in the frequency of 75-110GHz.

LCBT is for Low Cost, Compact, Bench-top, which means this module can be used with AC Power supply (with AC/DC Adapter) .

More information, please visit www.atmicrowave.com

-LCBT Option

Advantages

- ✓ Frequency: 75-110GHz
- ✓ Psat:+29dBm
- ✓ Small signal gain: 27dB
- ✓ Single Power Supply

Application

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

Product Selection Guide

PN	Description
AT-PA-75110-2729GN-LCBT (Recommended)	-LCBT: Low Cost, Compact, Bench-top Option, Both AC Supply (90-240GHz) and DC Supply(+24V) AC/DC adapter Included.
AT-PA-75110-2729GN-NHF	-NHF: Non-Heatsink and Fan. Power Supply +17V. Heat and Fan required during operation.

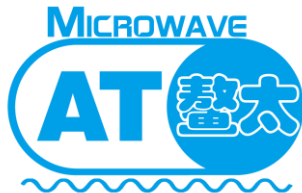
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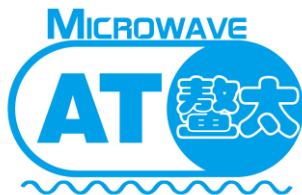
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Key Features

Parameter	Min	Typical	Max
Frequency		75-110GHz	
Small Signal Gain	27dB 23dB	75-105GHz: 30dB 105-110GHz: 27dB	
Psat	+27.8dBm +26.5dBm	75-109GHz: +29dBm 109-110GHz: +28dBm	
AC Power Supply/-LCBT Option	+90V	+220V	+240V
DC Power Supply/-NHF Option		+17V/1.5A	+20V
Power Consumption		27W	
Input Return Loss		-7dB	
Output Return Loss		-7dB	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	WR-10
Output Port	WR-10
-LCBT Power Supply	2.1mm DC Jack, AC-DC Adapter included.
-NHF Power Supply	PIN
Internal Module Case Material	Copper
Internal Module Finish	Gold Plated
-LCBT Case Material	Aluminum
-LCBT Case Finish	Painted
Weight	-LCBT 1.5KG -NHF 0.5KG
Size:	See outline

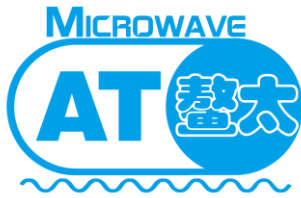
Absolute Maximum Ratings Table

Parameter	Value
-LCBT AC Supply	+260V/+28V
-NHF Power Supply	+20V
RF Input Power	+15dBm
Operating Temperature	0 to +50C
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.



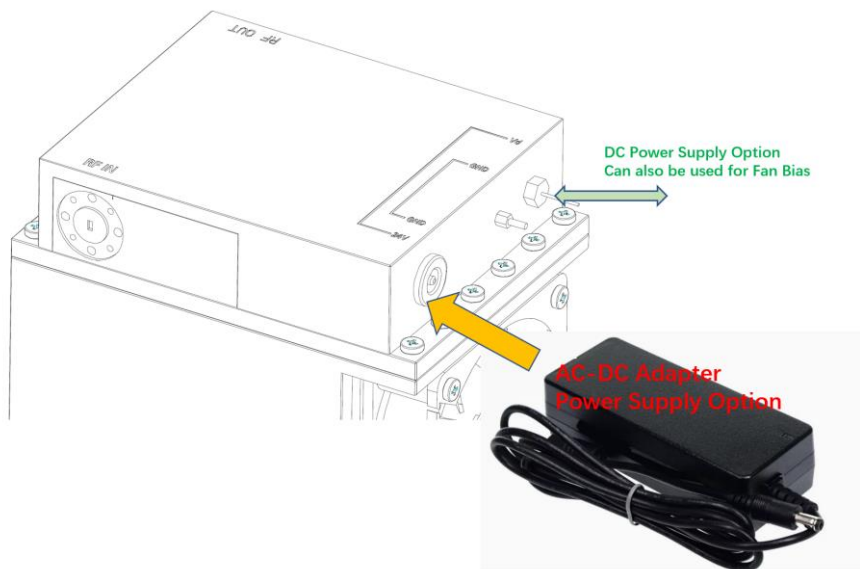


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LCBT Option-Power Supply Guide.

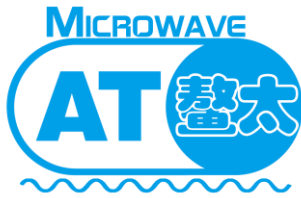
1. AC Power supply with AC/DC Adapter. PIN VDD Output=24V, can be used for Fan bias.
2. DC Power Supply from PIN VDD.
3. AT Microwave provide AC/DC adapter, heatsink and Fan in default.



Caution:

1. 2.1mm DC Jack power supply is connected with DC-VDD internally.
2. DC-VDD Output is used for Fan Bias.
3. DC-VDD=+24V can also be used for PA Module Power Supply if 2.1mm DC Jack leaves floating.
4. Never Apply 2.1mm DC Jack and DC-VDD=+24V together at same time.



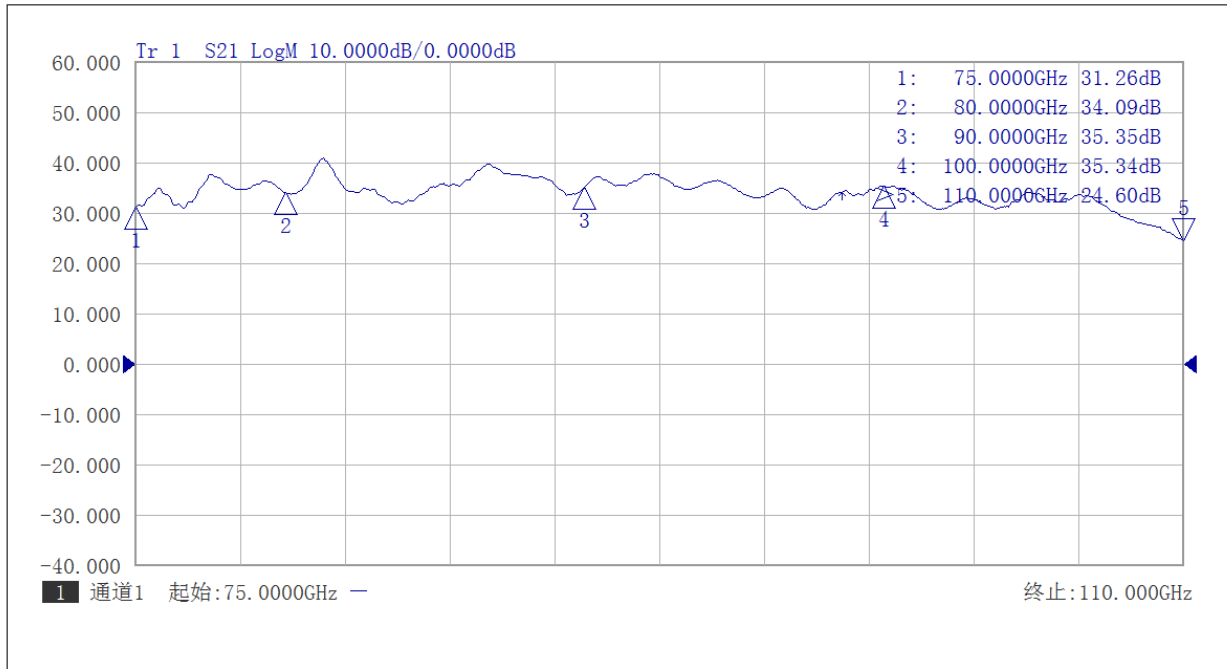


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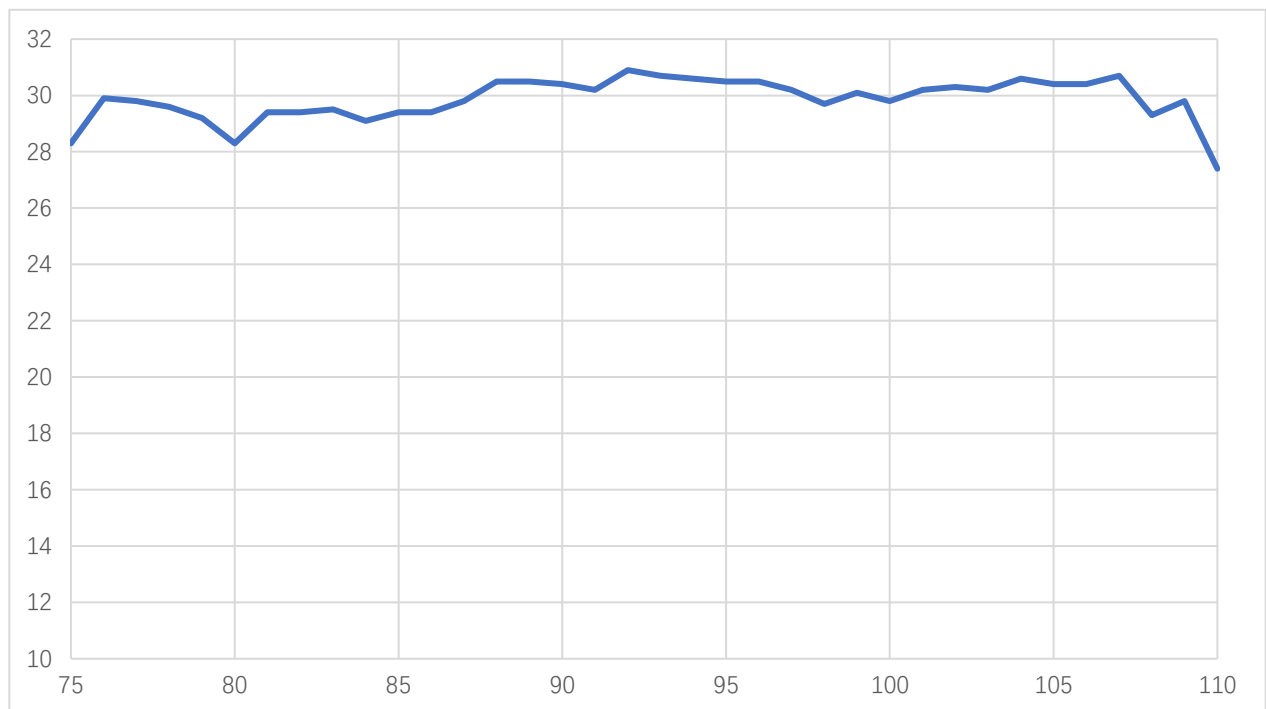
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Test Data (25C)

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



Gain vs Frequency



Psat vs Frequency

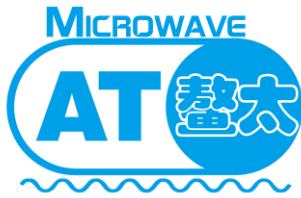
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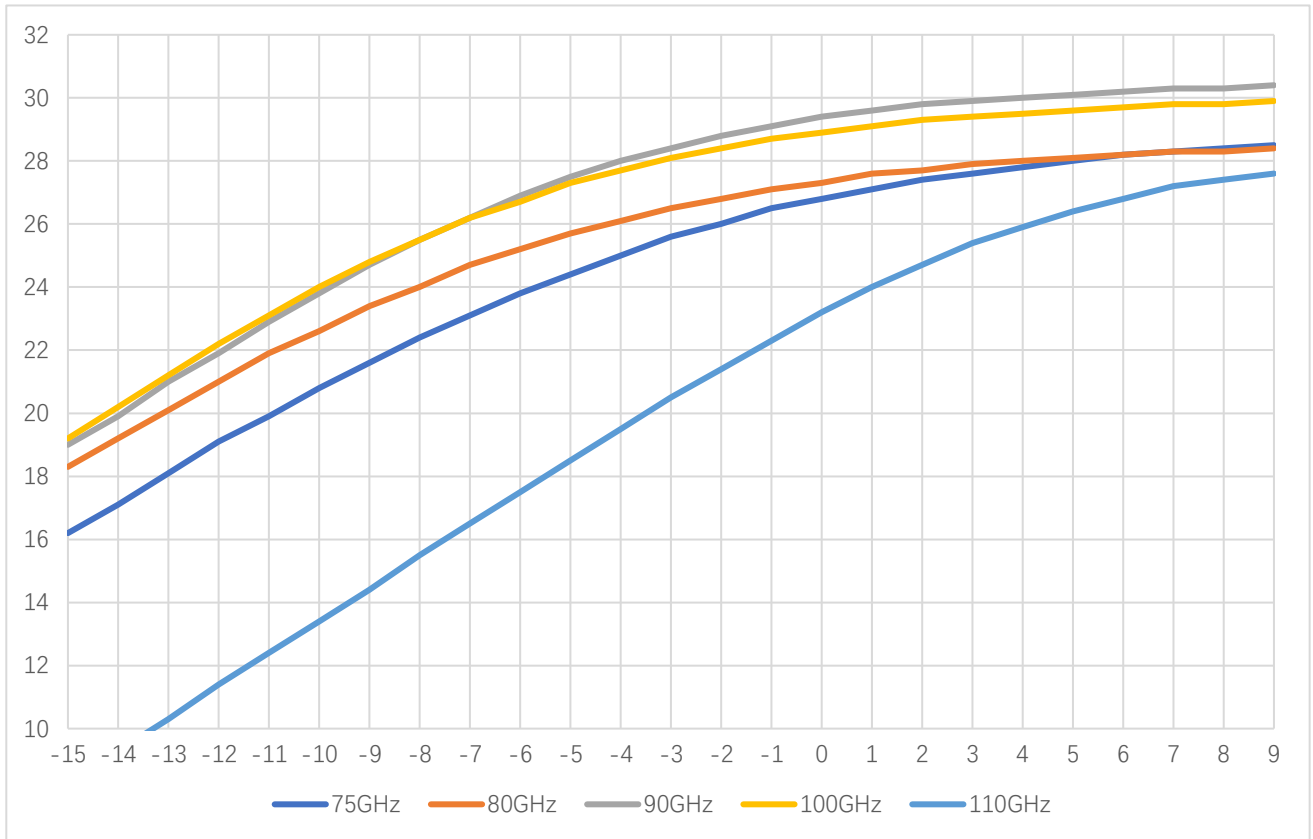
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P_{out} vs P_{in}

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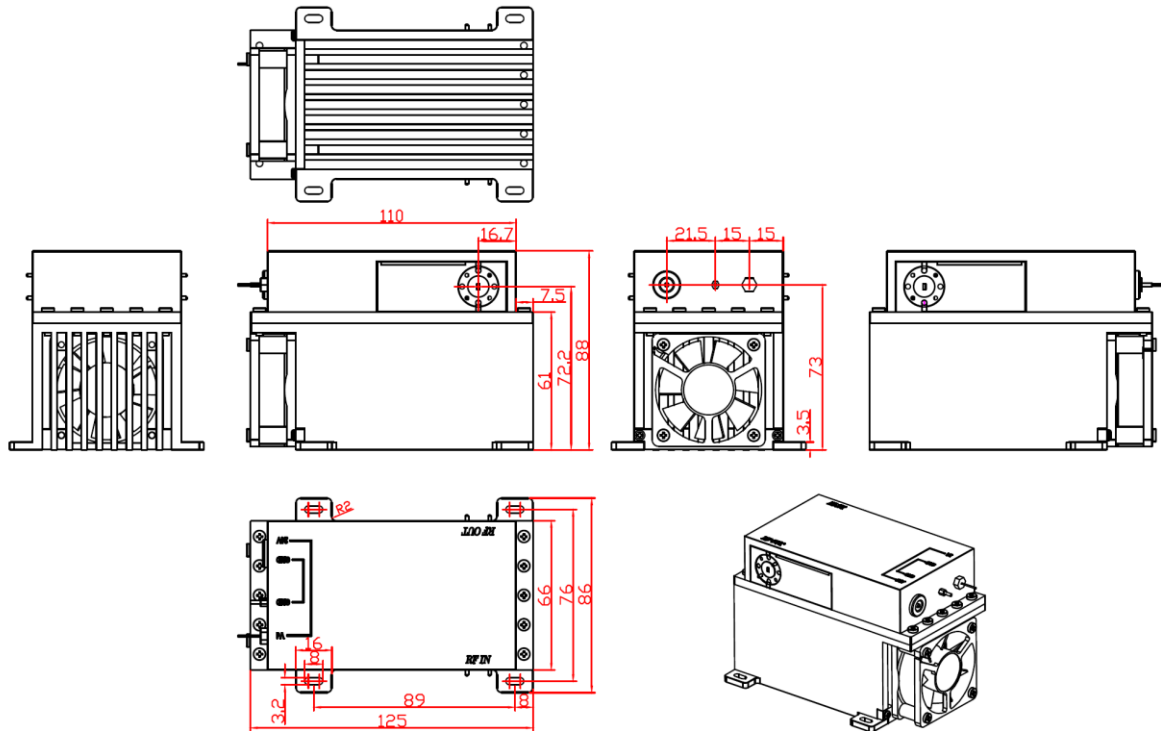
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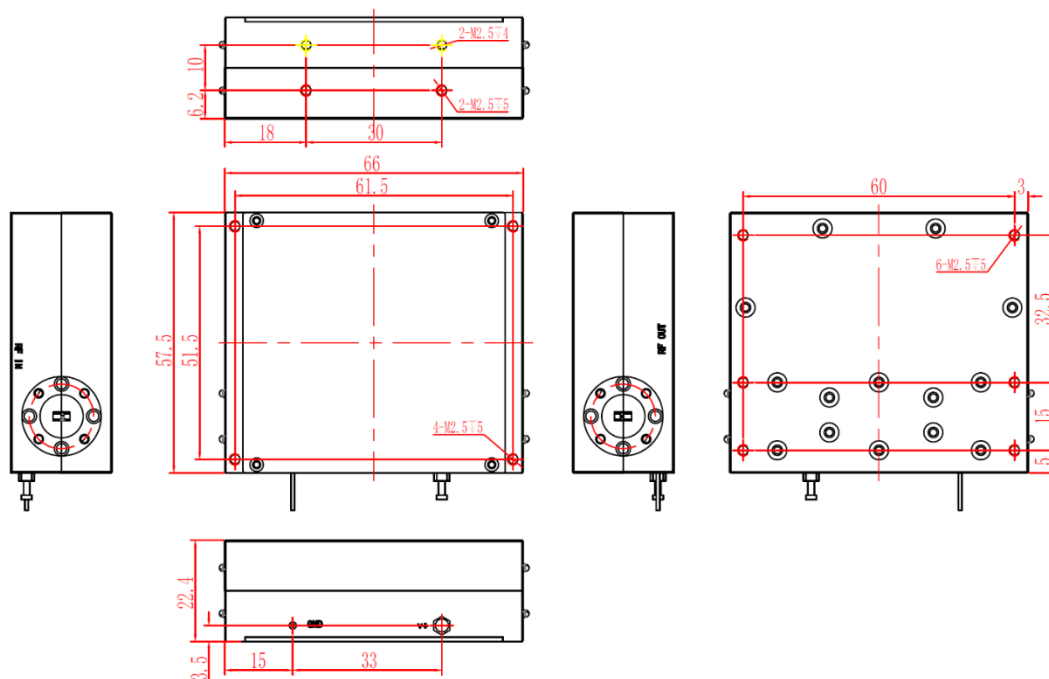
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-LCBT Dimension with Heatsink and Fan (unit mm)



NHF Option Dimension (unit mm)



Heatsink and Fan required during operation

