

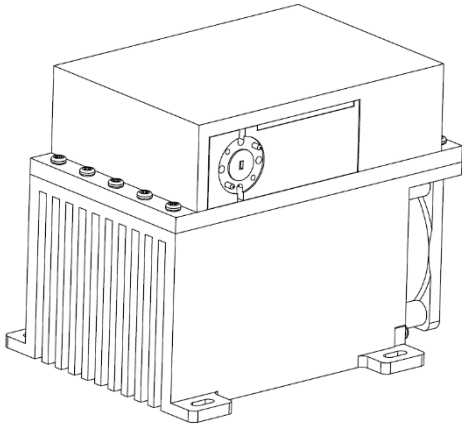


AT-PA-75110-2729GN

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

Full W Band Power Amplifier, WR-10 High Gain=27dB , Psat=+29dBm

2022-6-5



Product Overview

AT-PA-75110-2729GN is 27dB high gain power amplifier with +29dBm output power in the frequency of 75-110GHz. The DC power requirement is +16V/1.2A. 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. Low gain module is available.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 75-110GHz
- ✓ Psat:+29dBm
- ✓ Small signal gain: 27dB
- ✓ 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		75-110GHz	
Small Signal Gain	30dB 24dB	75-96GHz: 33dB 96-110GHz: 27dB	
Psat	+27	+29dBm	
Supply Voltage		+16V	+18V
Quiescent Current/A (No RF)		0.9A	
Psat Current/A		1.2A	
Input Return Loss		-5dB	
Output Return Loss		-5dB	
Spec Temp		25C	

Note: Heat Sink is required.

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www.atmicrowave.com





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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: 500g With Heatsink: 1.3kg
Size:	See outline

Absolute Maximum Ratings Table

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

Caution:

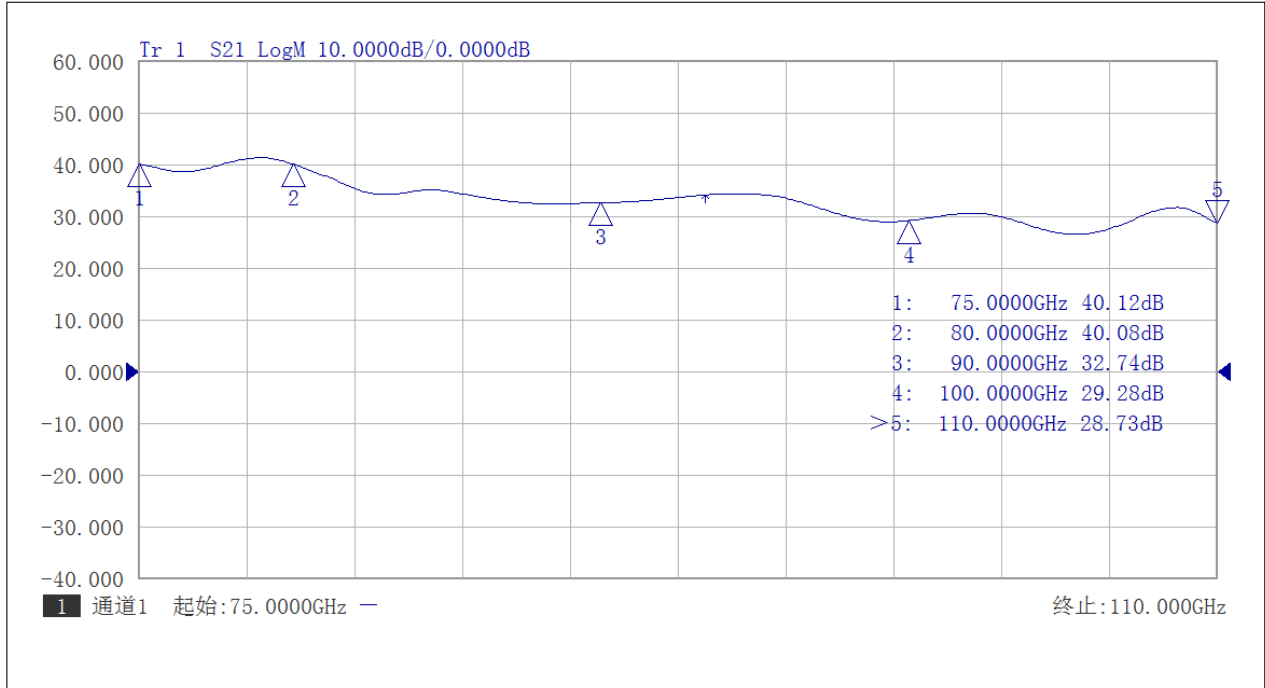
Please pay attention to the case temperature. If case temperature exceeds higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

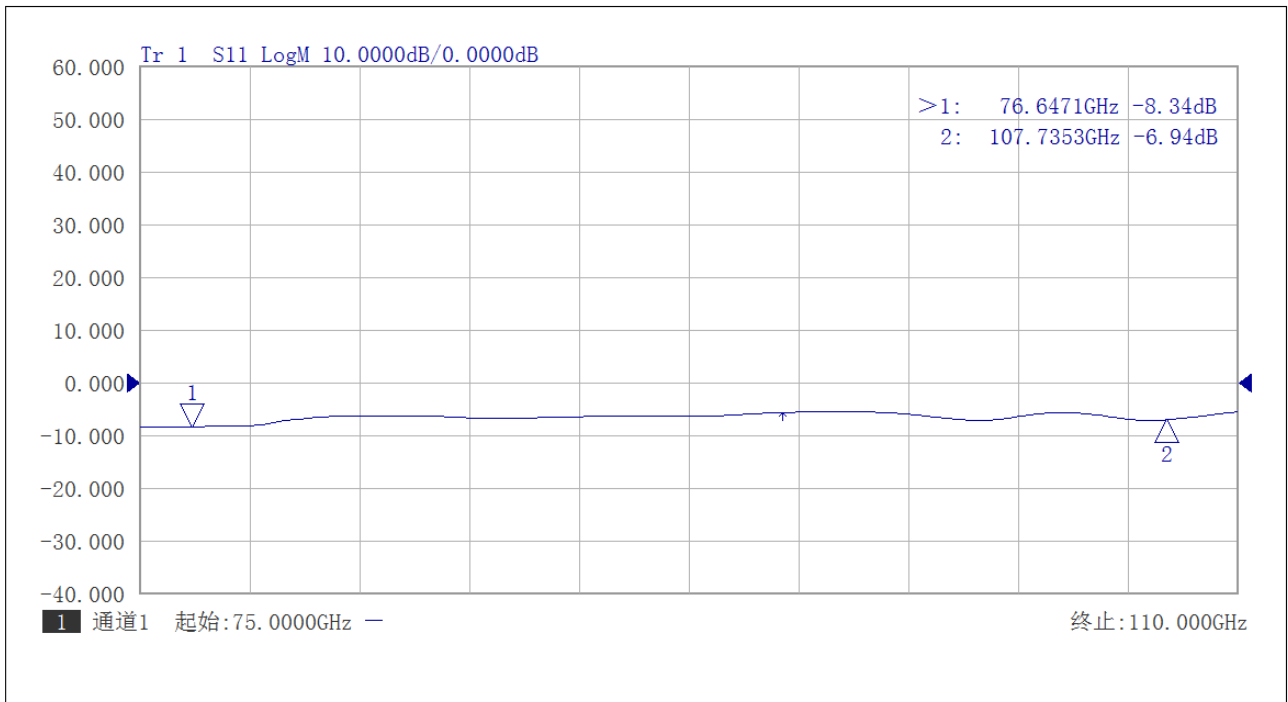
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data:



Gain vs Frequency



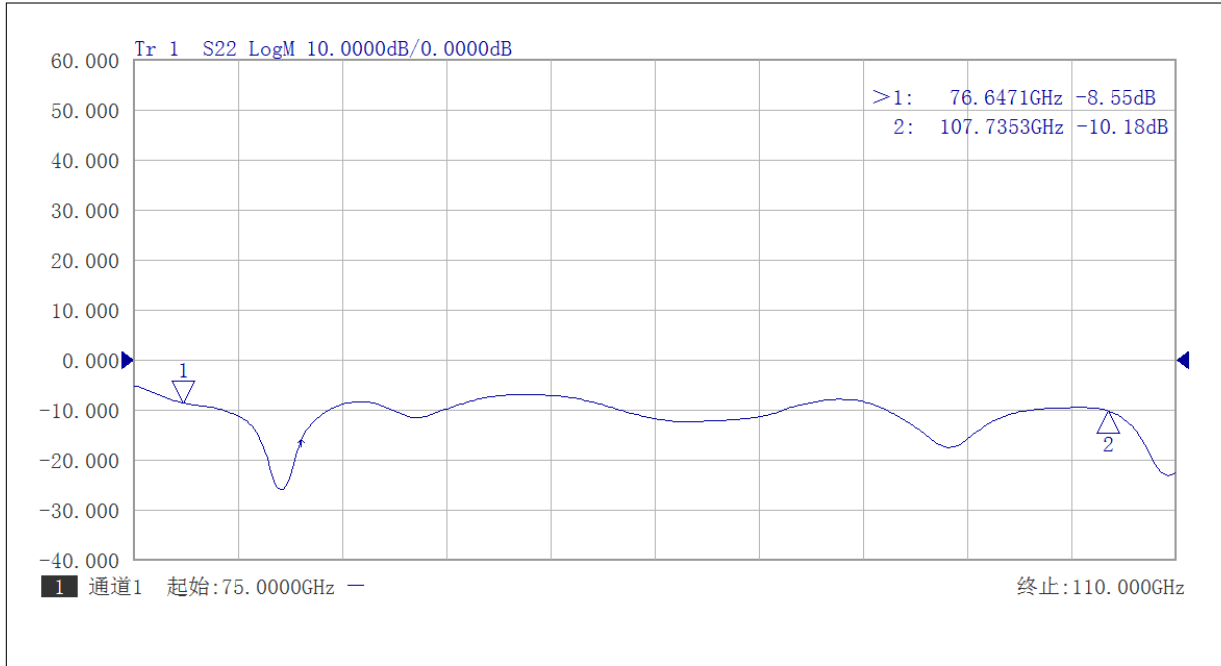
Input Return Loss vs Frequency



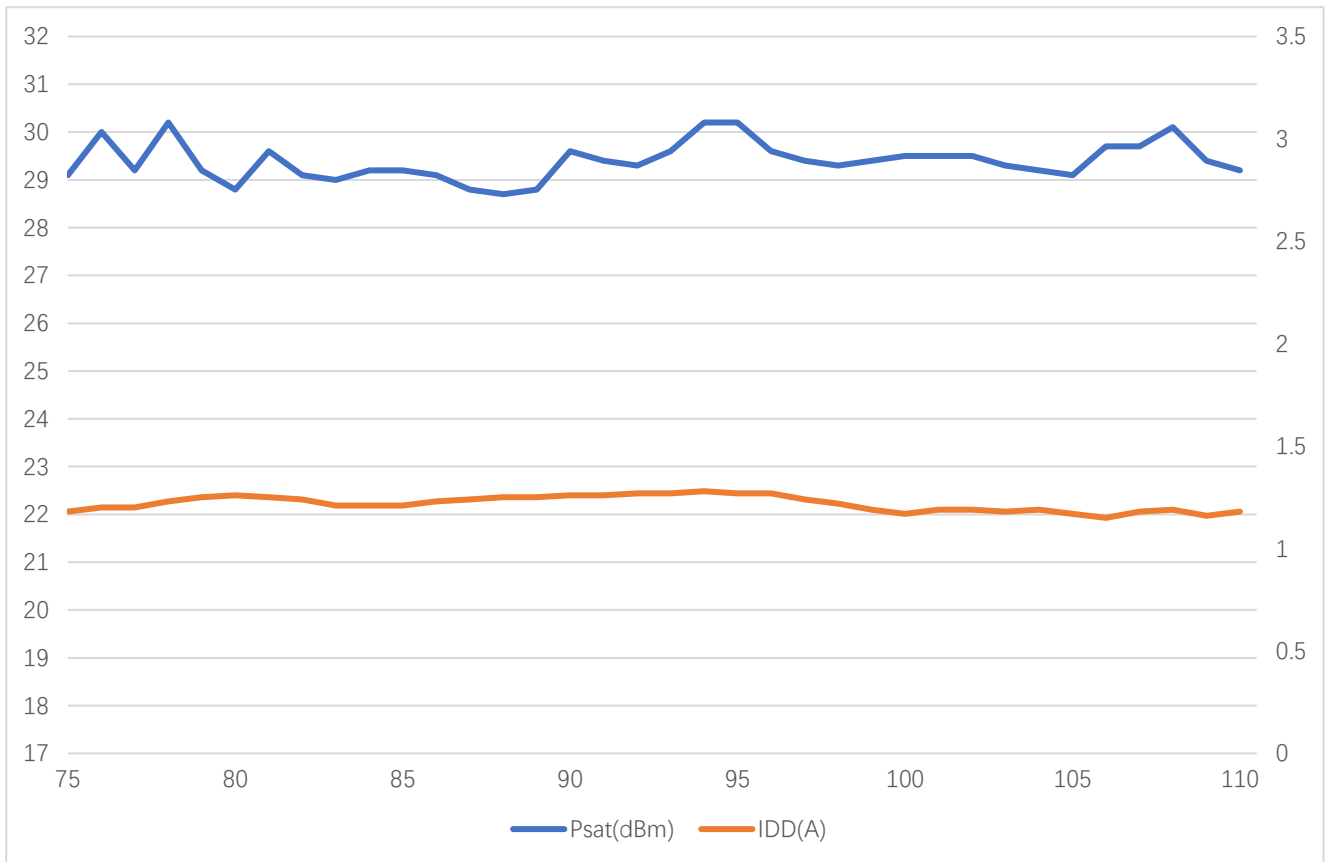


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Output Return Loss vs Frequency



Pout and IDD vs Frequency, Vdd=+16V, Pin=+13dBm

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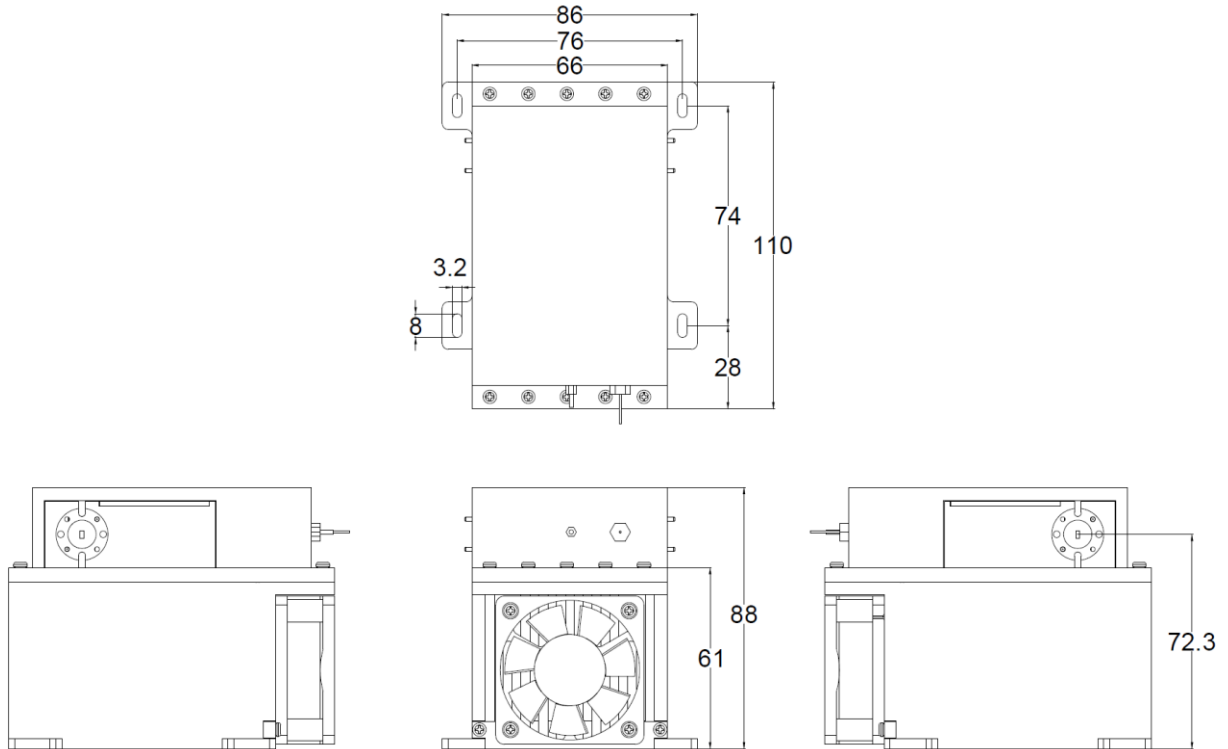




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Dimension: (unit in mm)



Outline with heatsink and Fan in default

Customer can remove the heatsink and Fan if using their own heatsink system.

