



AT-PA-80115-1622

80-115GHz Power Amplifier, Psat=+22dBm

W/F Band Power Amplifier



Product Overview

AT-PA-80115-1622 is power amplifier with +22dBm output power in the frequency of 80-115GHz. The DC power requirement is +9V/480mA. The module is with a standard WR-08 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: 80-115GHz
- ✓ Psat:+22 dBm
- ✓ Small signal gain: 16dB
- ✓ Single Power Supply

Application

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

Key Features

Parameter	Min	Typical	Max
Frequency		80-115GHz	
Gain		16dB	
Drain Supply		+9V	+12V
Quiescent Current/A (NO RF)		0.38A	
PSAT Current/A		0.48A	
P1Db		+15dBm	
Psat	+20dBm	+22dBm	
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Temp Spec		25C	

Note: Heatsink and fan are required.

Only provide 110GHz test data due to test limit.





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Mechanical Information

Item	Description
Input Port	WR-08
Output Port	WR-08
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	221g
Size:	57.5x33x22.4mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+12V
RF Input Power	+15dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

Caution:

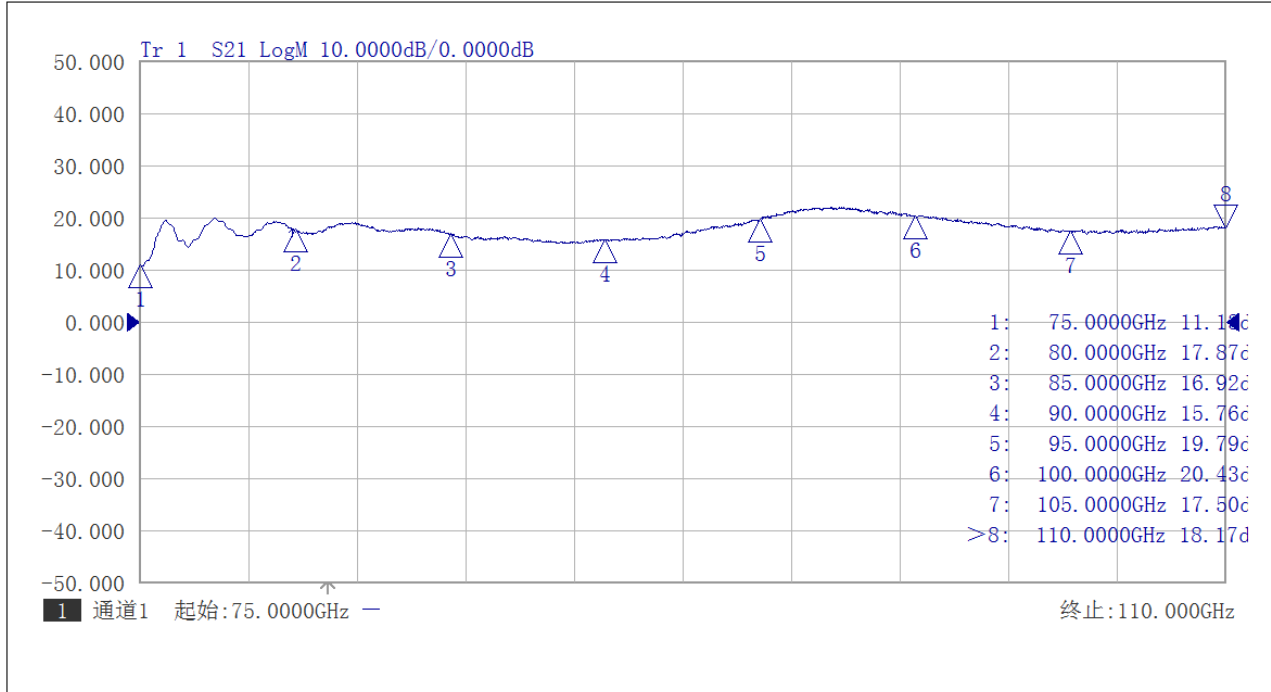
Please pay attention to the case temperature. If case temperature exceeds higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

Notes:

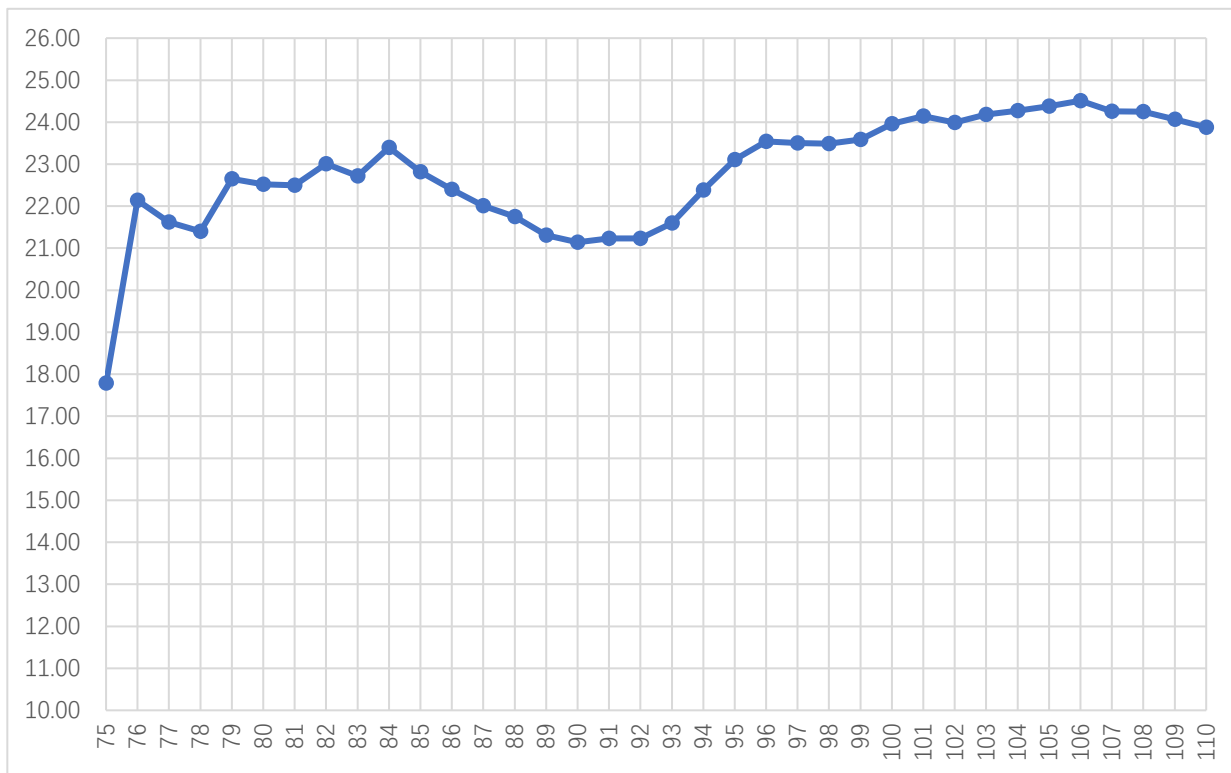
1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.



Test Data:



Gain vs Frequency



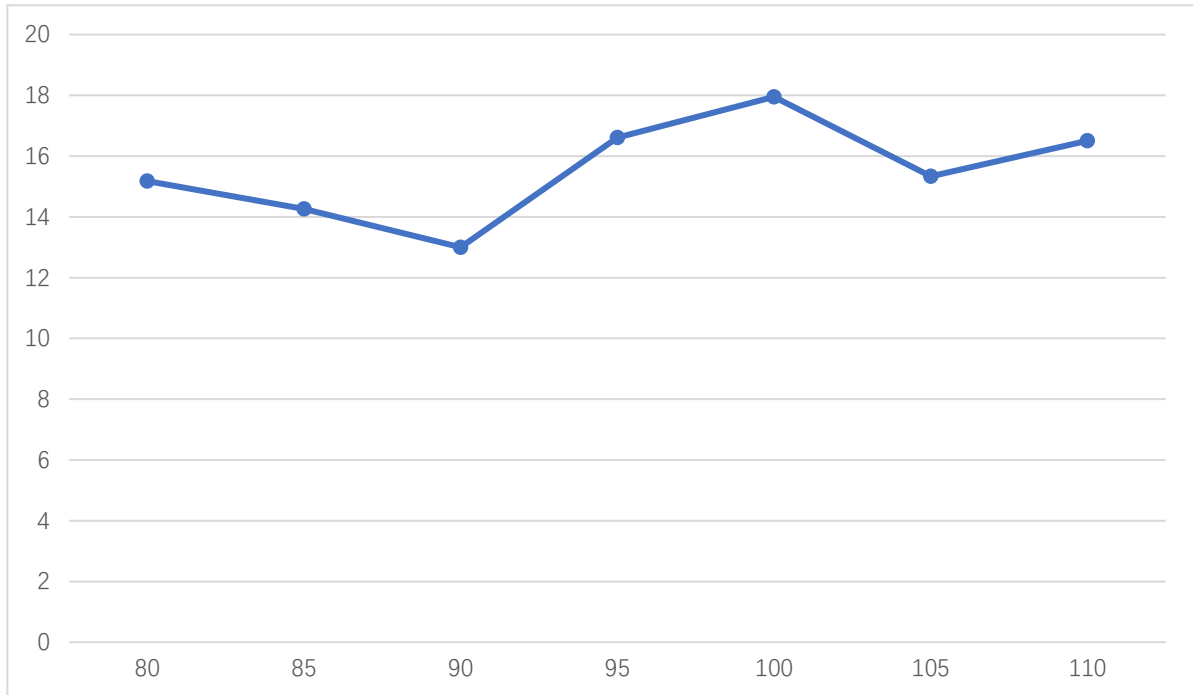
Psat vs Frequency at Pin=+13dBm



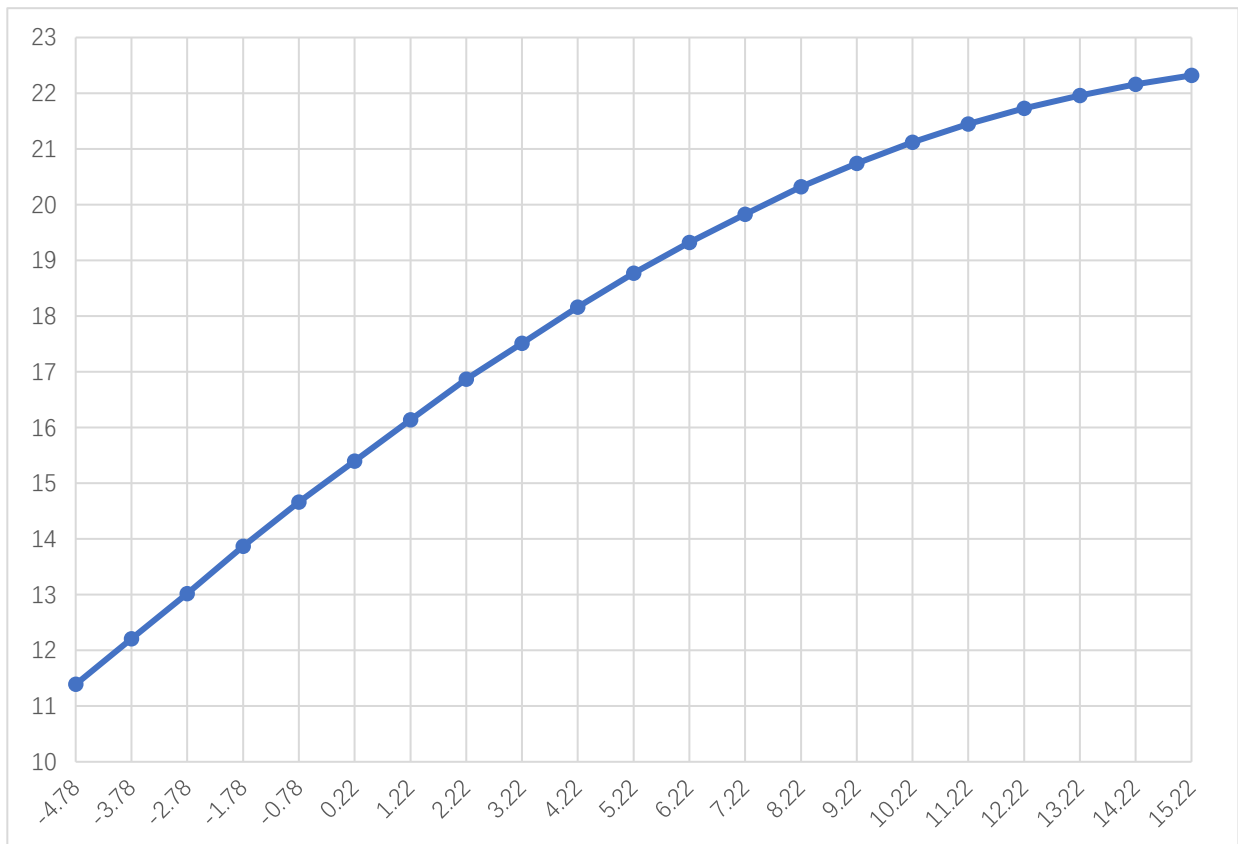


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P1dB vs Frequency



Pout vs Pin at 80GHz

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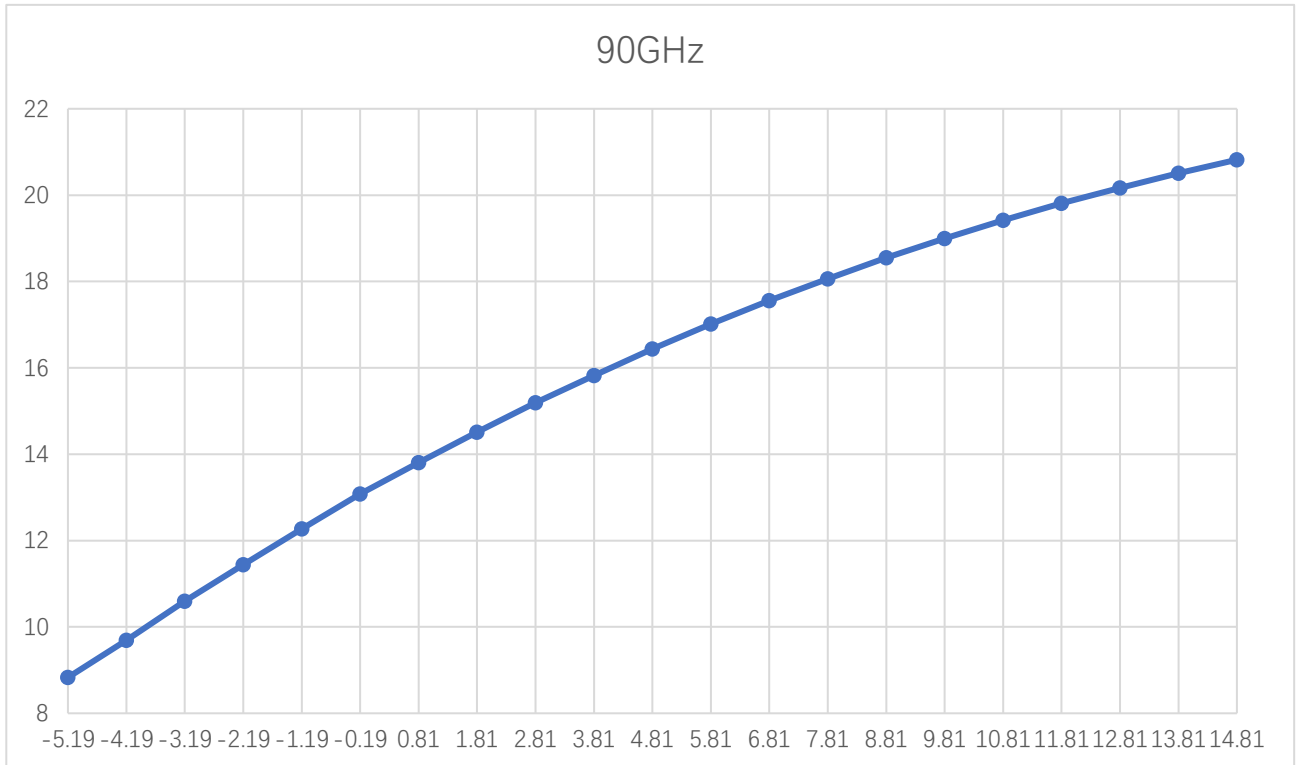
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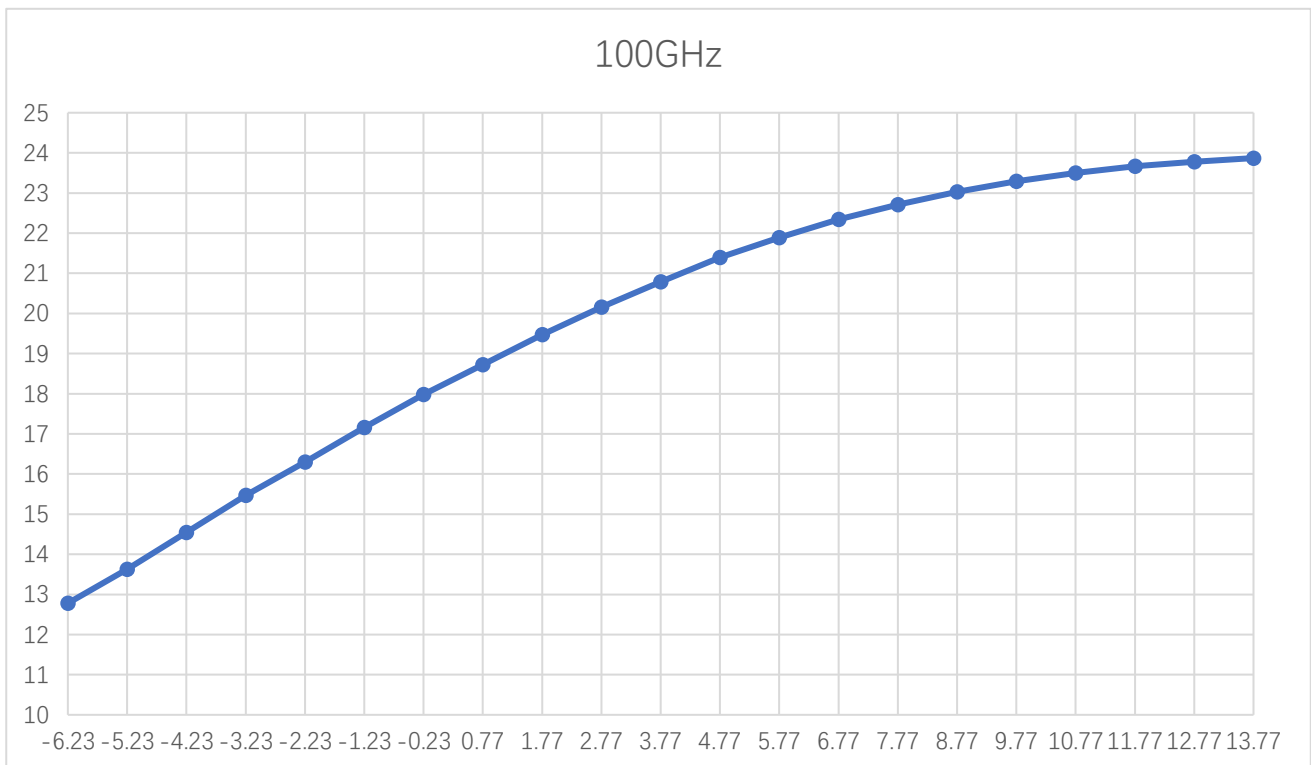


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Pout vs Pin at 90GHz



Pout vs Pin at 100GHz

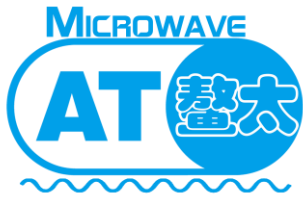
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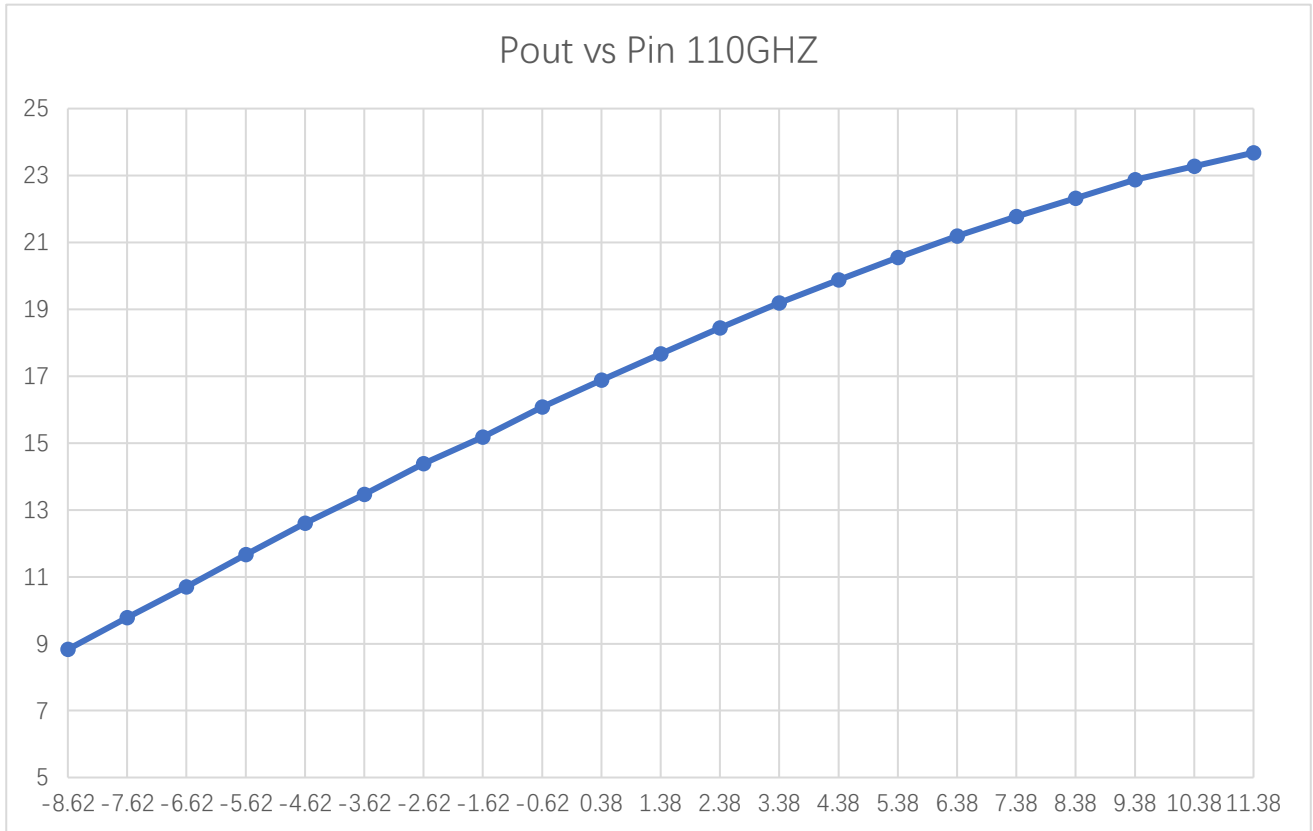
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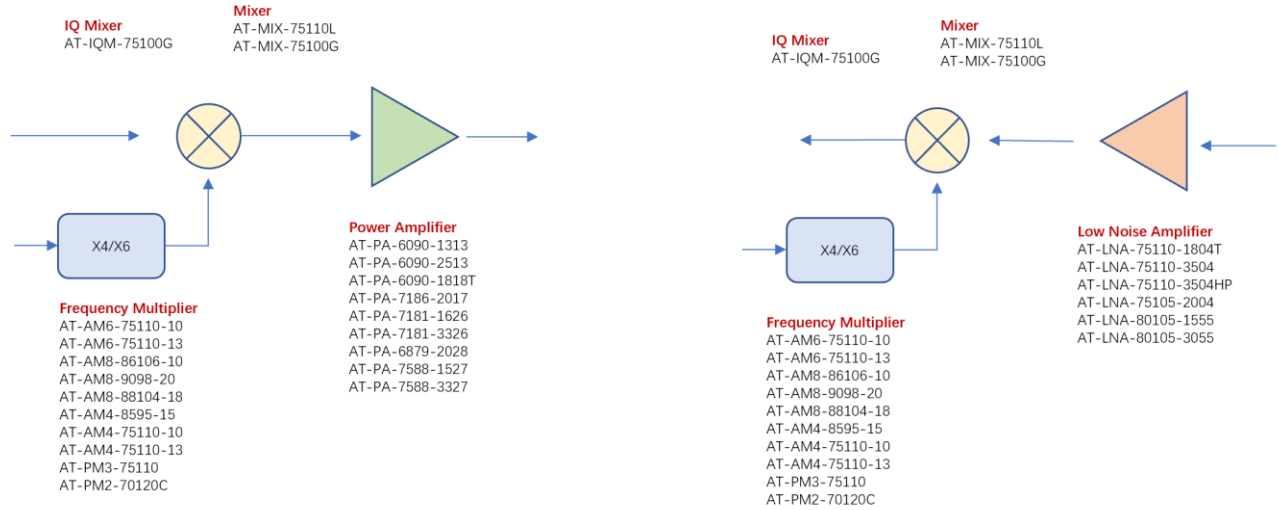
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Pout vs Pin at 110GHz



W BAND 75-110GHZ



Dimension:(unit in mm)

