



## ANMI080120-P42

X-band matched GaN power amplifier module

### Features:

Frequency: 8~12GHz

Saturated Output Power:  $P_{sat} \geq 42\text{dBm}$

PowerGain:  $\text{Gain} \geq 20\text{dB}$

Efficiency:  $\eta = 30\%$ (type)

Port Matching:  $Z_{in}/Z_{out} = 50\Omega$

### Description:

ANMI080120-P42 is an internal matching GaN power amplifier module, which adopts advanced co-planar internal matching MCM and thin film circuit technology. The typical working frequency range is 8~12GHz. This device can be used in different RF/Microwave system and subsystem. The high output power level, high efficiency and wide operating temperature range can make application very flexible.

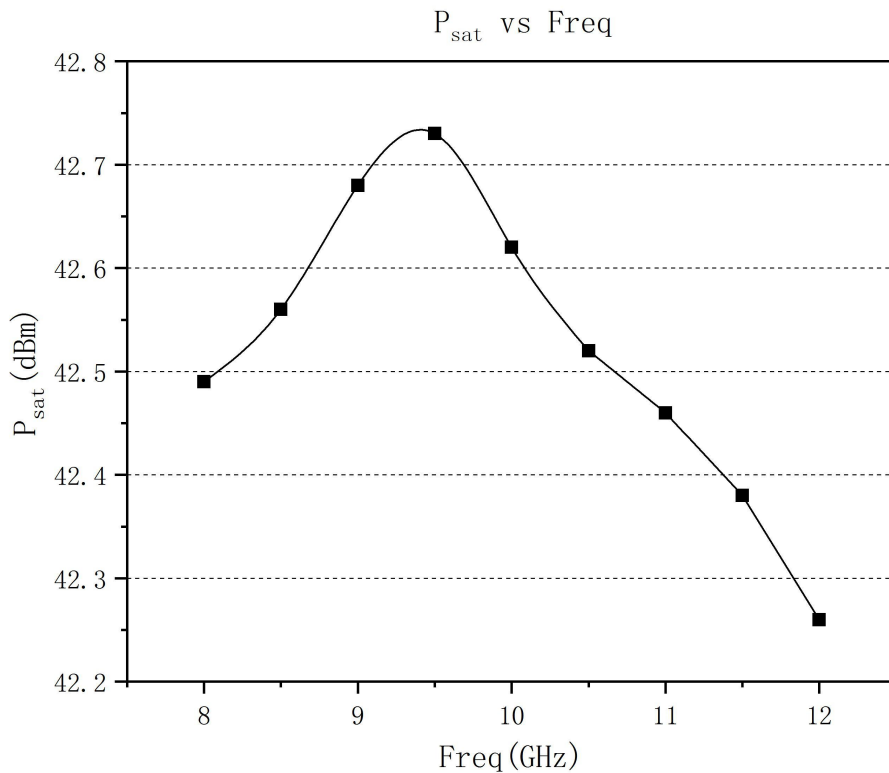
### Maximun Ratings (TC=25°C, Not recommended working under this condition):

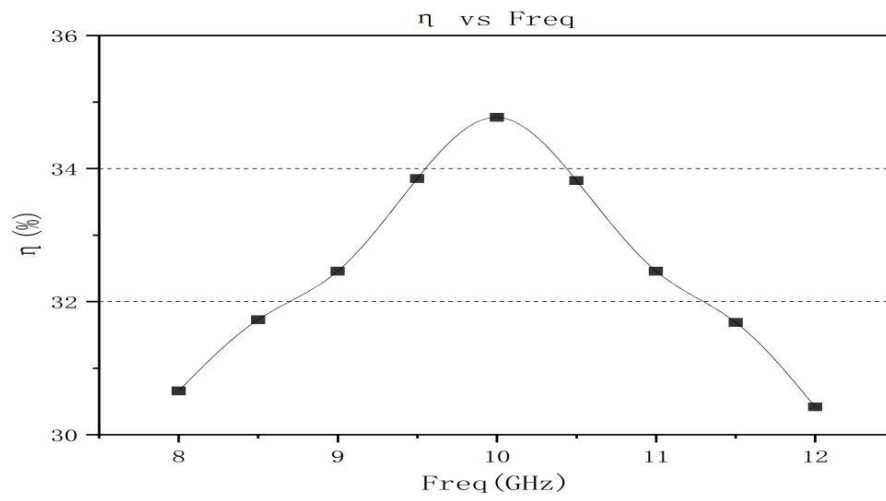
	Symbol	Value	Unit
Voltage between source and drain	$V_{DS}$	40	V
Voltage between gate and source	$V_{GS}$	-5	V
Storage Temperature Range	$T_{stg}$	-65 to +175	°C
Drain and Source Channel Temperature	$T_{ch}$	175	°C

## Electrical Characteristics:

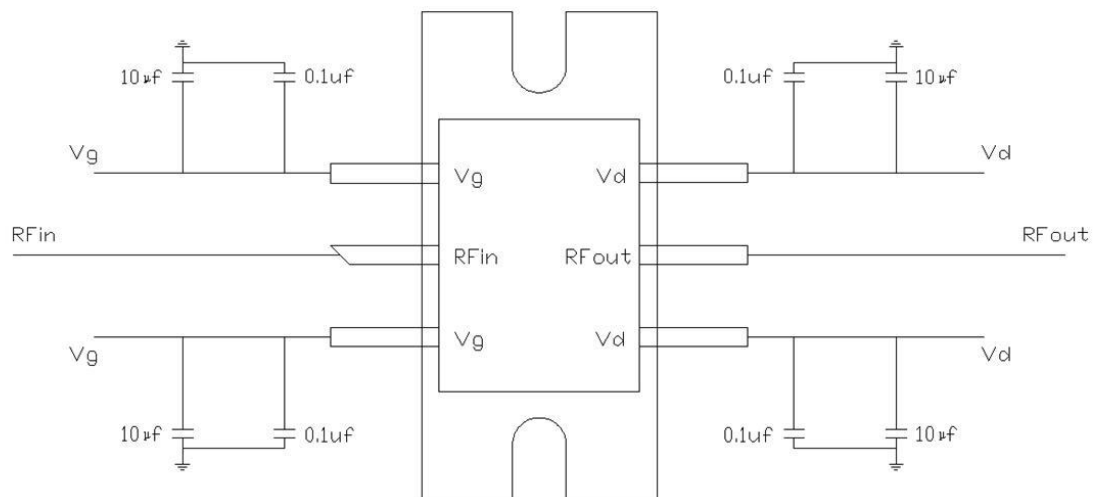
	Symbol	Test condition	Value			Unit
			Min	Typ	Max	
Drain Current	$I_{dsr}$	V <sub>ds</sub> =28V CW. Pin: 22dBm Freq: 8~12GHz	-	1.9	-	A
Saturated Output Power	$P_{sat}$		42	-	-	dBm
Gain	$G_p$		20	-	-	dB
Efficiency	$\eta$		-	30	-	%
Gain Flatness	$\Delta G$		-0.8	-	+0.8	dB

## Typical Curve:





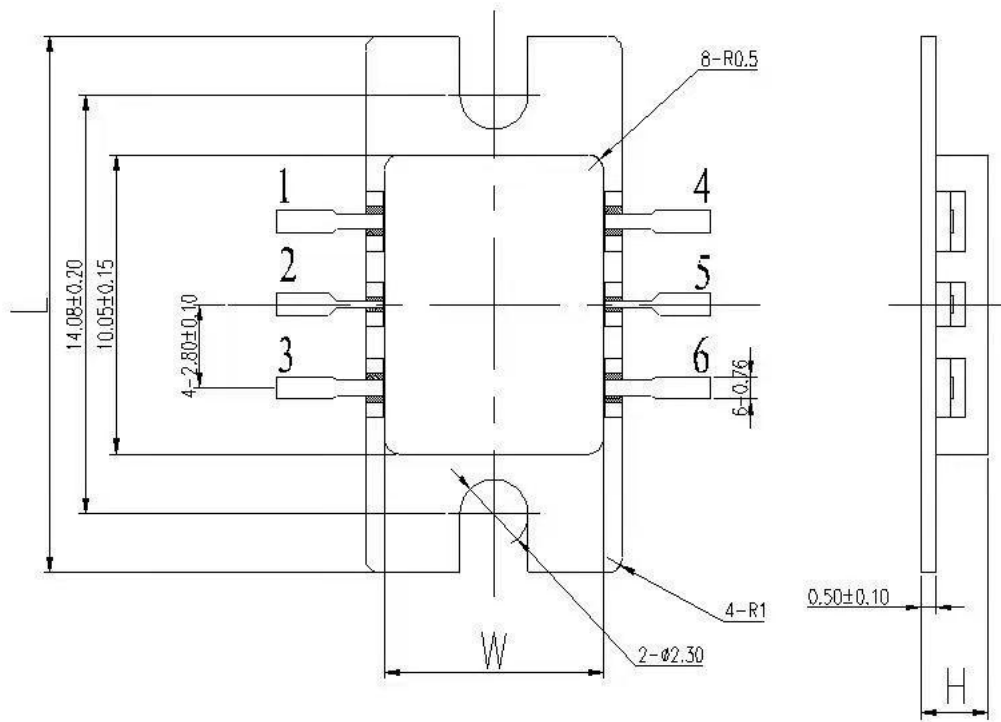
## Application Circuit:



## ESD Level:

ESD	Class III	2000V
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## Outline:



## Precautions for use:

- Pay attention to drying transportation and storage.
- Pay attention to anti-static during chip use and assembly, and wear grounding anti-static bracelet.
- When powering up, first apply grid power then add leakage.