

# ANGI090100-P52

## X-Band matched GaN Device

### Features:

Frequency: 9~10GHz

Saturated Output Power:  $P_{sat} \geq 52\text{dBm}$

PowerGain:  $\text{Gain} \geq 8.5\text{dB}$

Add-Efficiency:  $\text{PAE} \geq 36\%$

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

### Description:

ANGI090100-P52 is an internal matching GaN device, which adopts advanced co-planar internal matching MCM and thin film circuit technology. The typical working frequency range is 9~10GHz. 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.

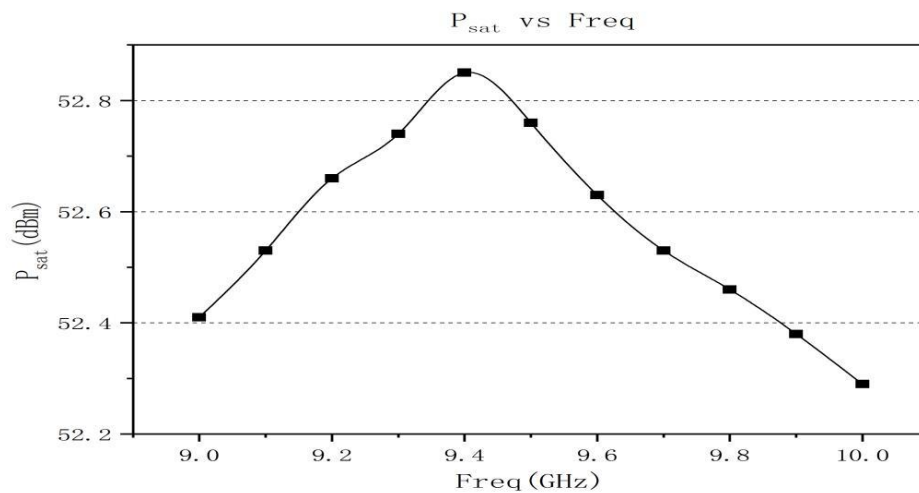
### Maximun Ratings (TC=25°C, Not recommended working under this condition):

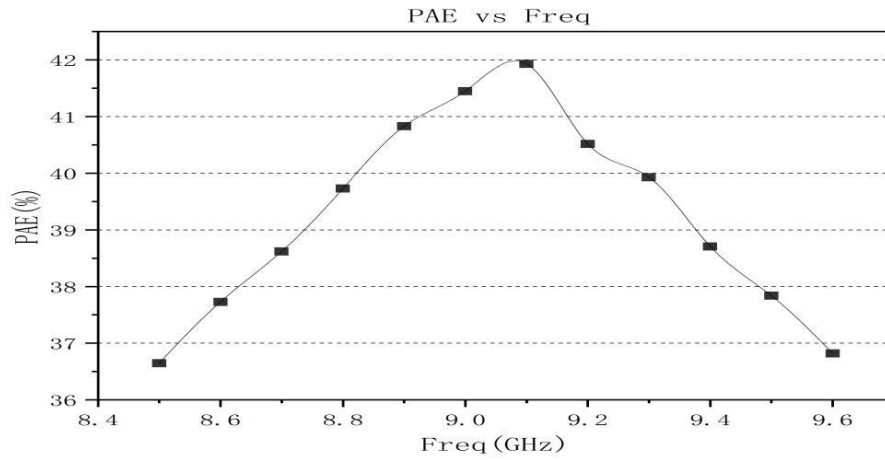
	Symbol	Value	Unit
Voltage between source and drain	$V_{DS}$	40	V
Voltage between gate and source	$V_{GS}$	-5	V
Storage Temperature Range	$T_{stg}$	-65 to +175	°C
Drain and Source Channel Temperature	$T_{ch}$	175	°C

## Electrical Characteristics:

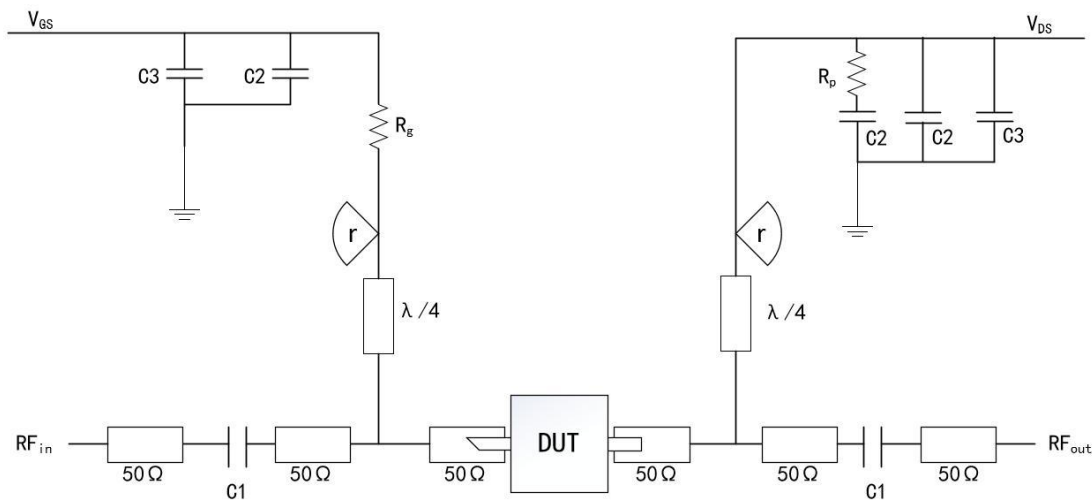
	Symbol	Test condition	Value			Unit
			Min	Typ	Max	
Drain Current	Idsr	Vds=28V PW. T=1ms, Duty=10% Pin: 43.5dBm Freq: 9~10GHz	-	13.6	-	A
Saturated Output Power	P <sub>sat</sub>		52	-	-	dBm
Gain	G <sub>p</sub>		8.5	-	-	dB
Add-Efficiency	PAE		36	-	-	%
Gain Flatness	ΔG		-0.8	-	+0.8	dB

## Typical Curve:





## Application Circuit:



DUT: Device to be tested

C1:1pF

$R_p$ :51 $\Omega$

C2:1000pF

$R_G$ :15 $\Omega$

C3:100uF

$r$ (radius) $\approx$ 3.5mm(Rogers5880, 20mil)

## 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.