



## ACGI050053-P41-1

### C-band matched GaAs Device

#### Features:

- Frequency: 5.05~5.35GHz
- 1dB Output Power :  $P_{1dB} \geq 41\text{dBm}$
- PowerGain: Gain  $\geq 9\text{dB}$
- Add-Efficiency: PAE=40%(type)
- Port matching:  $Z_{in}/Z_{out}=50\Omega$

#### Description:

ACGI050053-P41-1 is an internal matching GaAs device, which adopts advanced co-planar internal matching MCM and thin film circuit technology. The typical working frequency range is 5.05~5.35GHz. 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.

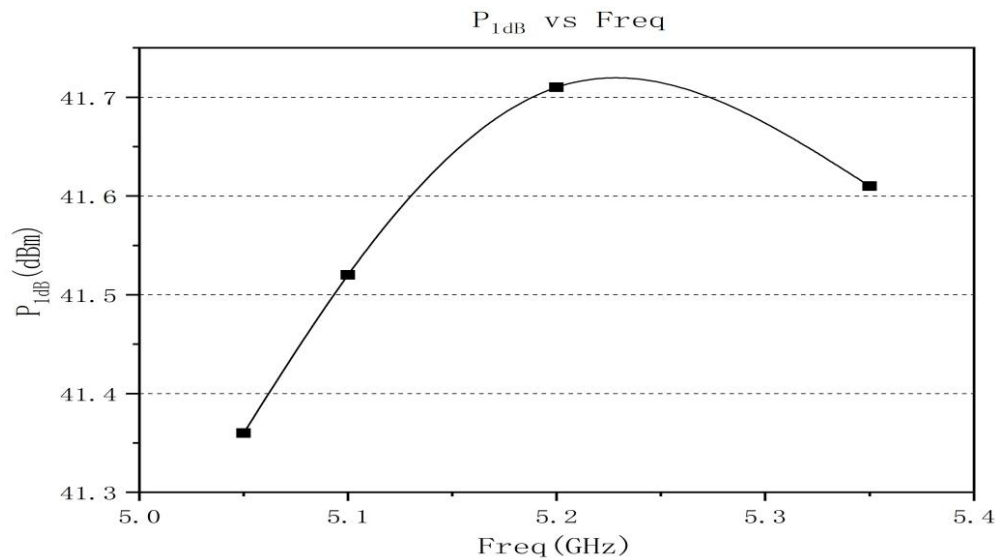
Maximun Ratings (TC=25°C, Not recommended working under this condition):

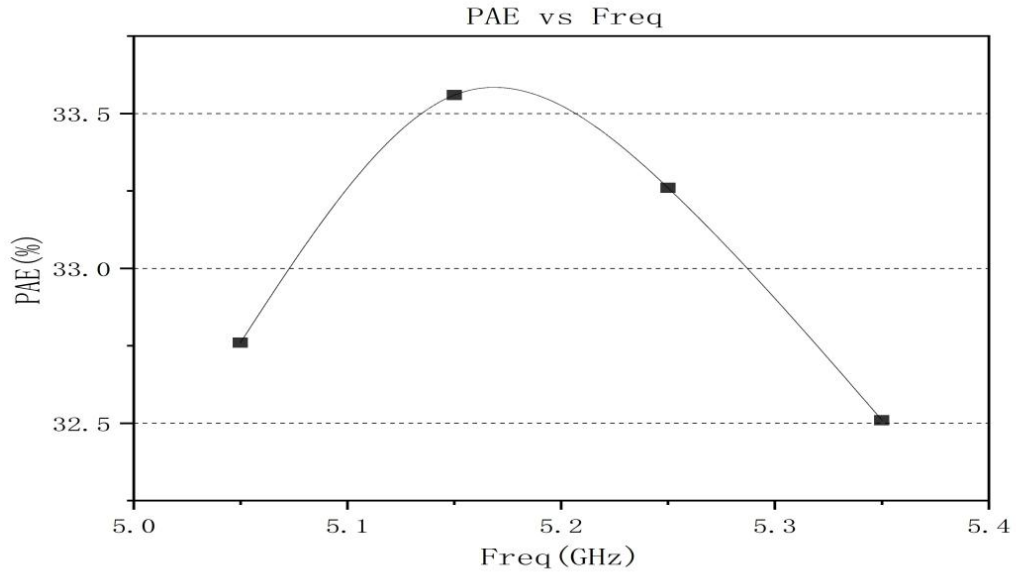
	Symbol	Value	Unit
Voltage between source and drain	$V_{ds}$	11	V
Voltage between gate and source	$V_{gs}$	-3	V
Storage Temperature Range	$T_{stg}$	-65 to +150	°C
Drain and Source Channel Temperature	$T_{ch}$	150	°C

## Electrical Characteristics:

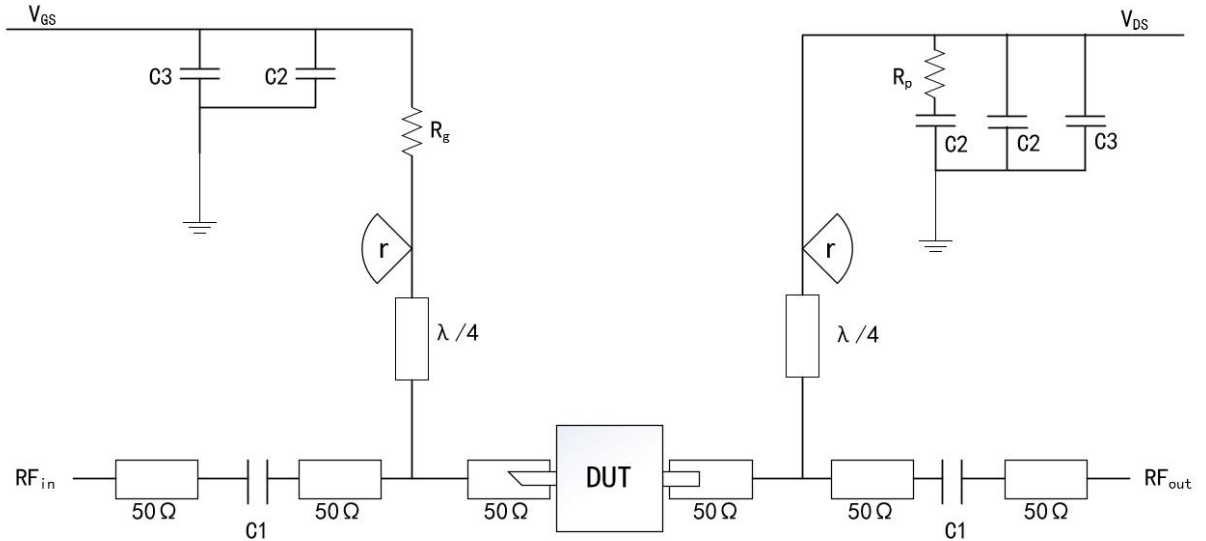
	Symbol	Test condition	Value			Unit
			Min	Typ	Max	
Drain Current	$I_{dsr}$	Vds=10V CW. Pin: 32dBm Freq: 5.05~5.35GHz	-	3.6	-	A
1dB output power	$P_{1dB}$		41	-	-	dBm
Gain	$G_p$		9	-	-	dB
Add-Efficiency	PAE		-	32	-	%
Gain Flatness	$\Delta G$		-0.8	-	+0.8	dB

## Typical Curve:





## Application Circuit:



## DUT: Device to be tested

C1:4.7pF

C2:1000pF

C3:100uF

R<sub>p</sub>:51Ω

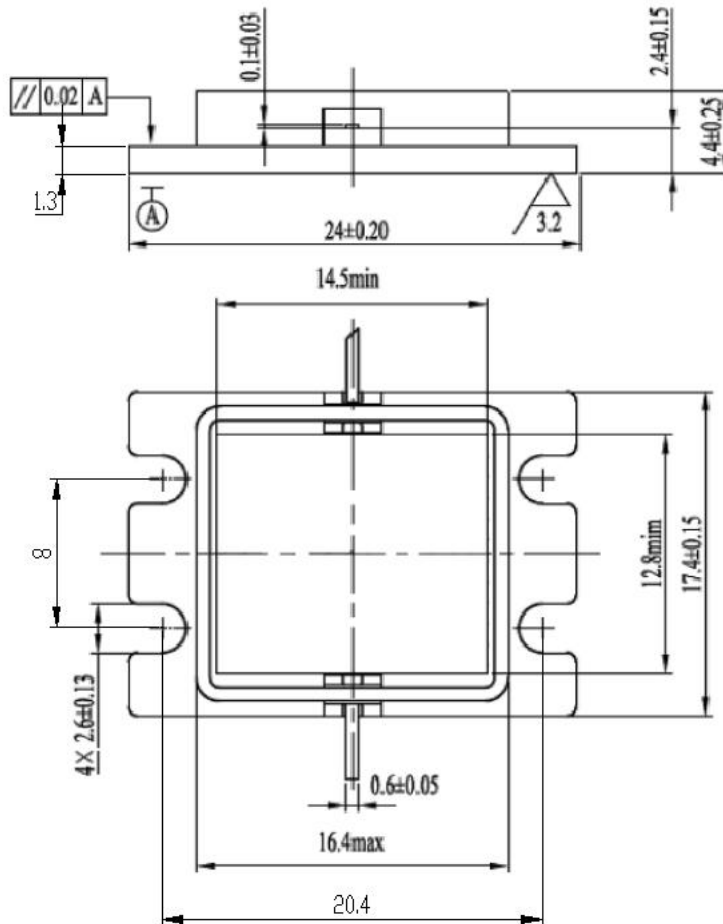
R<sub>g</sub>:15Ω

r(radius)≈5.8mm(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.