



ACGI077085-P42-1

Internal Matching GaAs Device

Features:

Frequency: 7.7~8.5GHz

1dB Output Power : $P_{1dB} \geq 42\text{dBm}$

PowerGain: Gain $\geq 10\text{dB}$

Efficiency: $\eta = 38\%$ (type)

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

Description:

ACGI077085-P42-1 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 7.7~8.5GHz. 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.

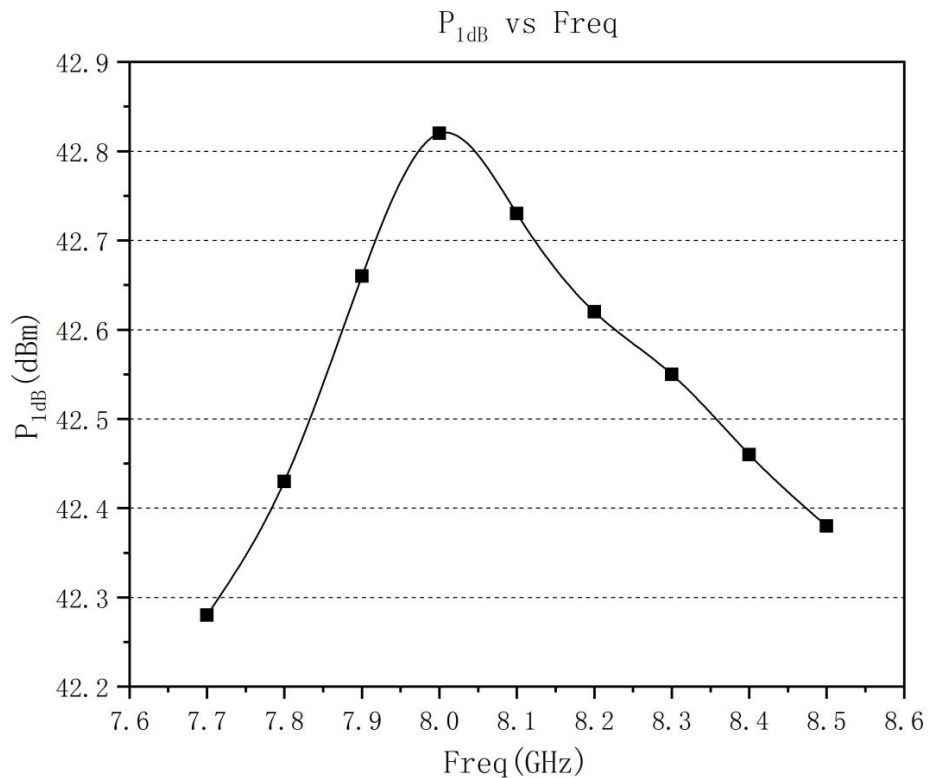
Maximun Ratings ($T_C = 25^\circ\text{C}$, Not recommended working under this condition):

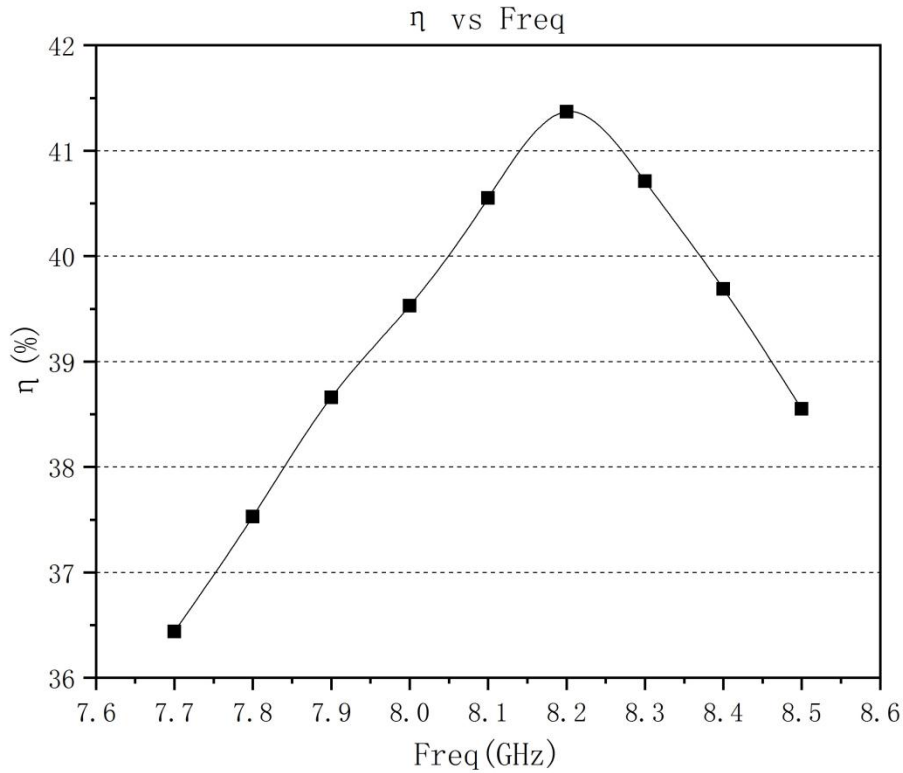
	Symbol	Value	Unit
Voltage between source and drain	V_{ds}	11	V
Voltage between gate and source	V_{gs}	-3	V
Storage Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$
Drain and Source Channel Temperature	T_{ch}	150	$^\circ\text{C}$

Electrical Characteristics:

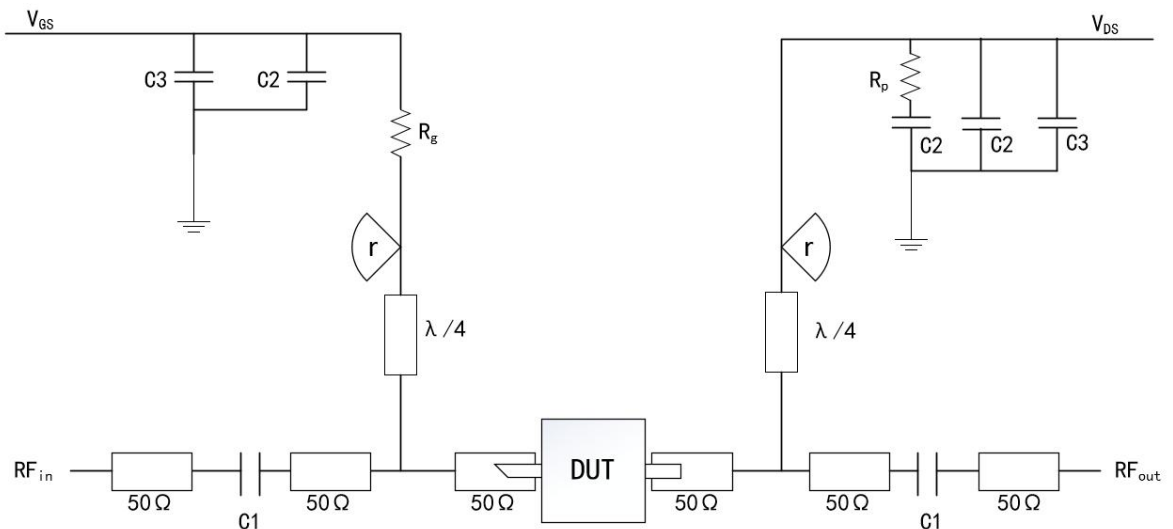
	Symbol	Test condition	Value			Unit
			Min	Typ	Max	
Drain Current	I _{dsr}	V _{ds} =10V CW. P _{in} : 32dBm Freq: 7.7~8.5GHz	-	4.2	-	A
1dB output power	P _{1dB}		42	-	-	dBm
Gain	G _p		10	-	-	dB
Efficiency	η		-	38	-	%
Gain Flatness	ΔG		-0.8	-	+0.8	dB

Typical Curve:





Application Circuit:



DUT: Device to be tested

C1:1pF
C2:1000pF
C3:100uF

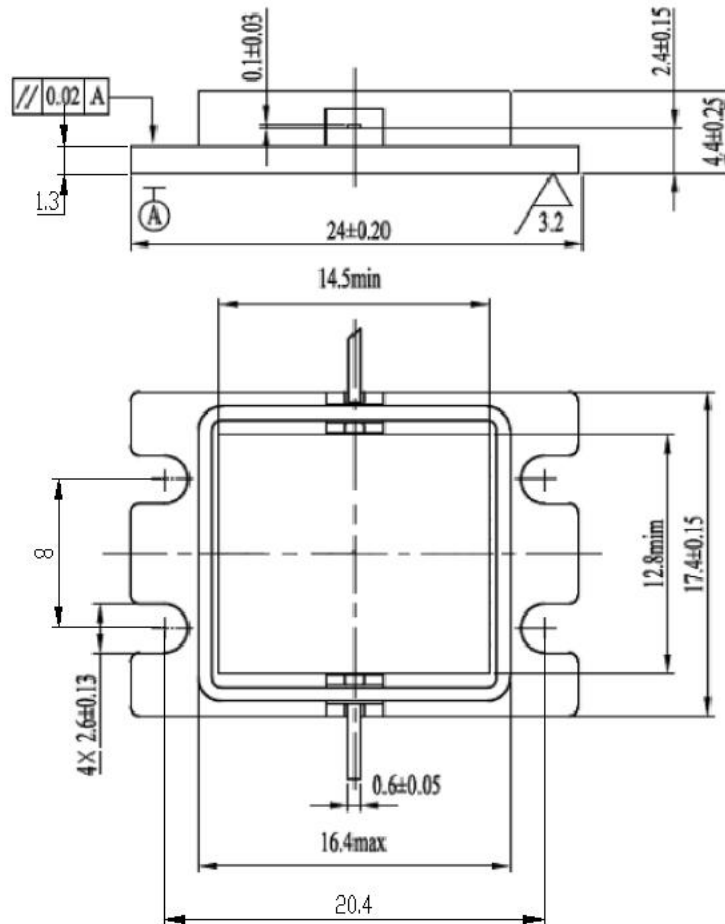
R_p :51Ω
 R_g :15Ω
 r (radius) \approx 3.5mm(Rogers5880, 20mil)

If you need more detailed product information, please contact our marketing personnel or designers.
Contact: Peter.Zhang Email: peter.zhang@anserrf.com

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.