

# ANGI071073-P50

## C-band matched GaN Device

### Features:

Frequency: 7.1~7.3GHz

Saturated Output Power:  $P_{sat} \geq 50\text{dBm}$

PowerGain:  $\text{Gain} \geq 9\text{dB}$

Add-Efficiency:  $\text{PAE} \geq 40\%$

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

### Description:

ANGI071073-P50 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 7.1~7.3GHz. 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.

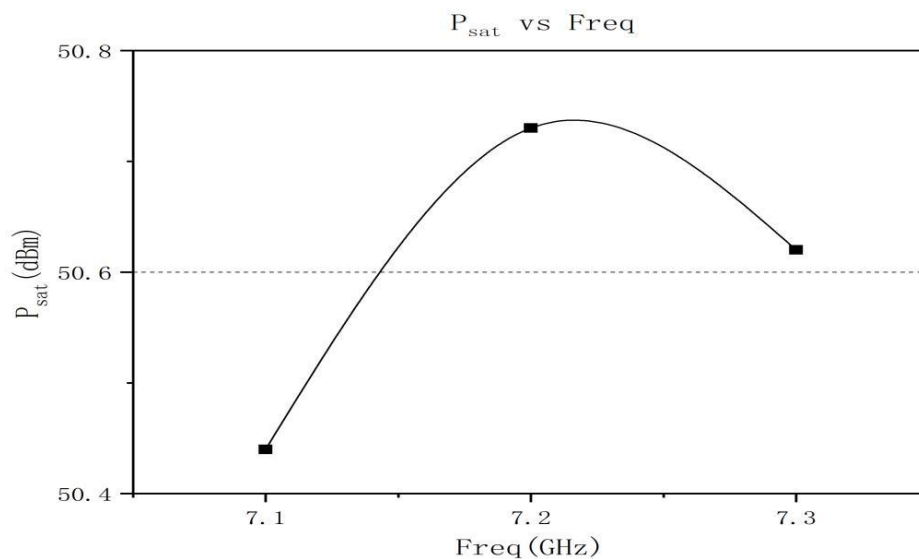
### Maximun Ratings (TC=25°C, Not recommended working under this condition):

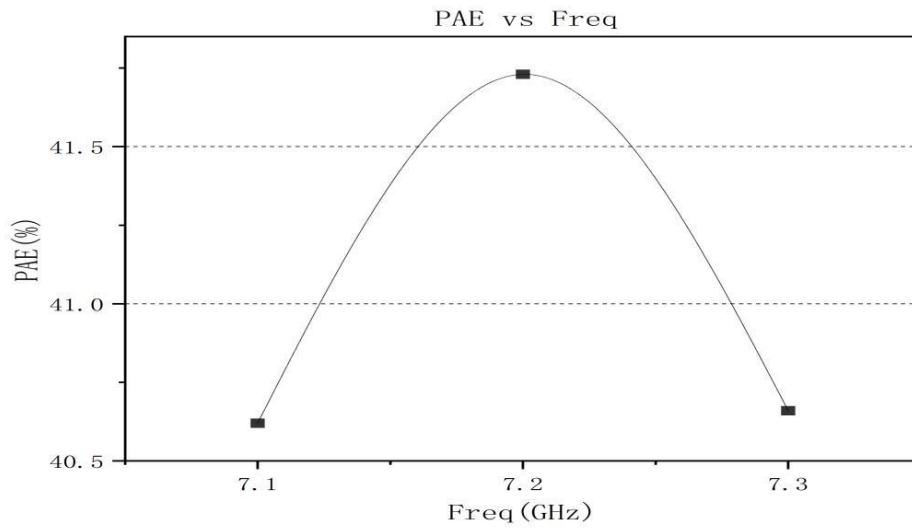
|                                      | Symbol    | Value       | Unit |
|--------------------------------------|-----------|-------------|------|
| Voltage between source and drain     | $V_{DS}$  | 40          | V    |
| Voltage between gate and source      | $V_{GS}$  | -5          | V    |
| Storage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

## Electrical Characteristics:

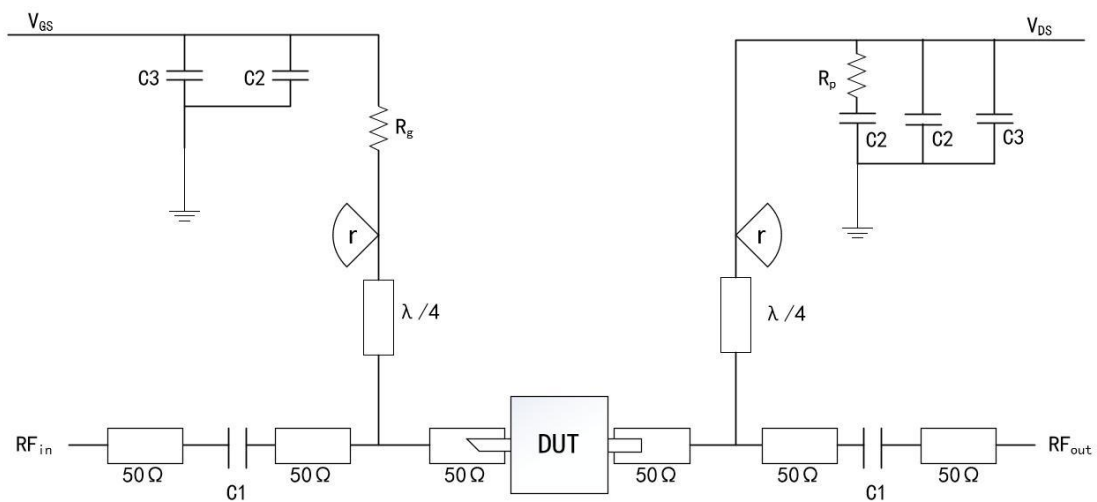
|                        | Symbol           | Test condition  | Value |     |      | Unit |
|------------------------|------------------|---|-------|-----|------|------|
|                        |                  |   | Min   | Typ | Max  |      |
| Drain Current          | I <sub>dsr</sub> | V <sub>ds</sub> =28V PW.<br>T=1ms, Duty=10%<br>Pin: 41dBm<br>Freq: 7.1~7.3GHz | -     | 7.7 | -    | A    |
| Saturated Output Power | P <sub>sat</sub> |   | 50    | -   | -    | dBm  |
| Gain                   | G <sub>p</sub>   |   | 9     | -   | -    | dB   |
| Add-Efficiency         | PAE              |   | 40    | -   | -    | %    |
| Gain Flatness          | ΔG               |   | -0.8  | -   | +0.8 | dB   |

## Typical Curve:





## Application Circuit:



DUT: Device to be tested

C1:3pF

$R_p$ :51Ω

C2:1000pF

$R_G$ :15Ω

C3:100uF

$r$ (radius) $\approx$ 4.5mm(Rogers5880, 20mil)

## ESD Level:

|     |           |       |
|-----|-----------|-------|
| ESD | Class III | 2000V |
|-----|-----------|-------|

## 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.