



## ANMI051059-P38

C-band matched GaN power amplifier module

### Features:

Frequency: 5.15~5.85GHz

Output Power:  $P_{out} \geq 38\text{dBm}$

PowerGain:  $\text{Gain} \geq 18\text{dB}$

Add-Efficiency:  $\text{PAE} \geq 30\%$

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

### Description:

ANMI051059-P38 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 5.15~5.85GHz. 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.

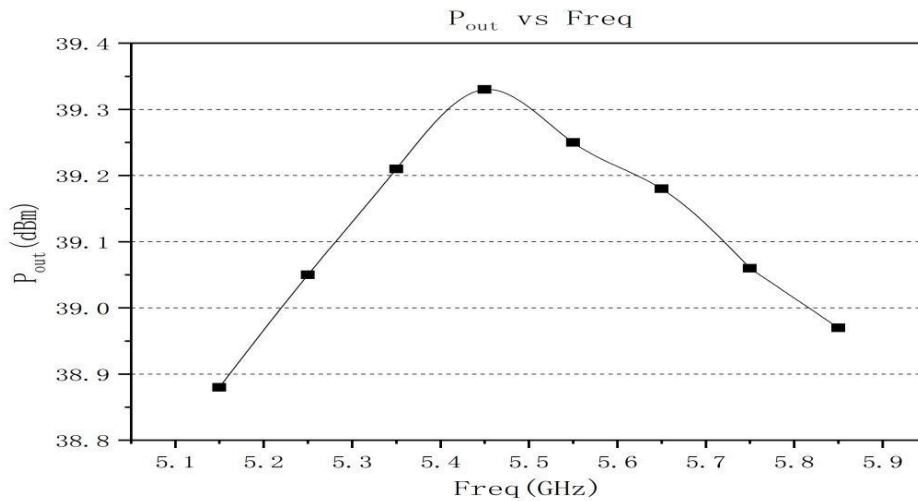
### Maximun Ratings (TC=25°C, Not recommended working under this condition):

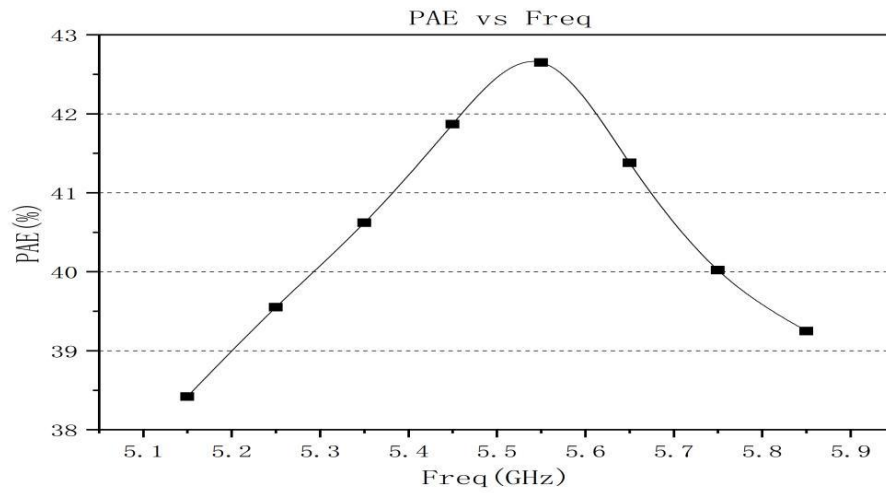
|                                      | Symbol    | Value       | Unit |
|--------------------------------------|-----------|-------------|------|
| Voltage between source and drain     | $V_{DS}$  | 40          | V    |
| Voltage between gate and source      | $V_{GS}$  | -5          | V    |
| Storage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

## Electrical Characteristics:

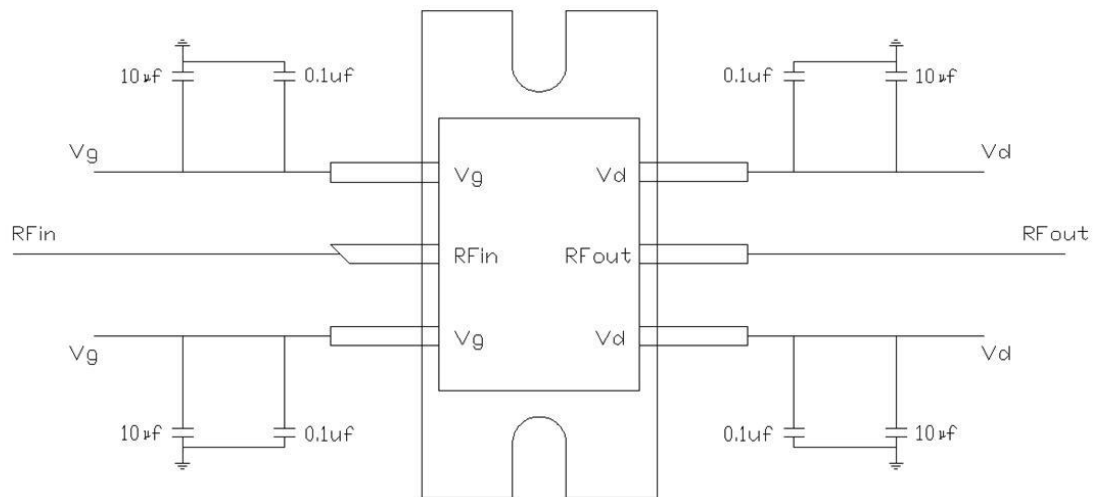
|                | Symbol     | Test condition   | Value |     |      | Unit |
|----------------|------------|--|-------|-----|------|------|
|                |            |  | Min   | Typ | Max  |      |
| Drain Current  | $I_{dsr}$  | $V_{ds}=28V$ CW.<br>$P_{in}: 20dBm$<br>Freq:<br>$5.15\sim 5.85GHz$ | -     | 0.8 | -    | A    |
| Output Power   | $P_{out}$  |  | 38    | 39  | -    | dBm  |
| Gain           | $G_p$      |  | 18    | 19  | -    | dB   |
| Add-Efficiency | PAE        |  | 30    | 35  | -    | %    |
| Gain Flatness  | $\Delta G$ |  | -0.8  | -   | +0.8 | dB   |

## Typical Curve:





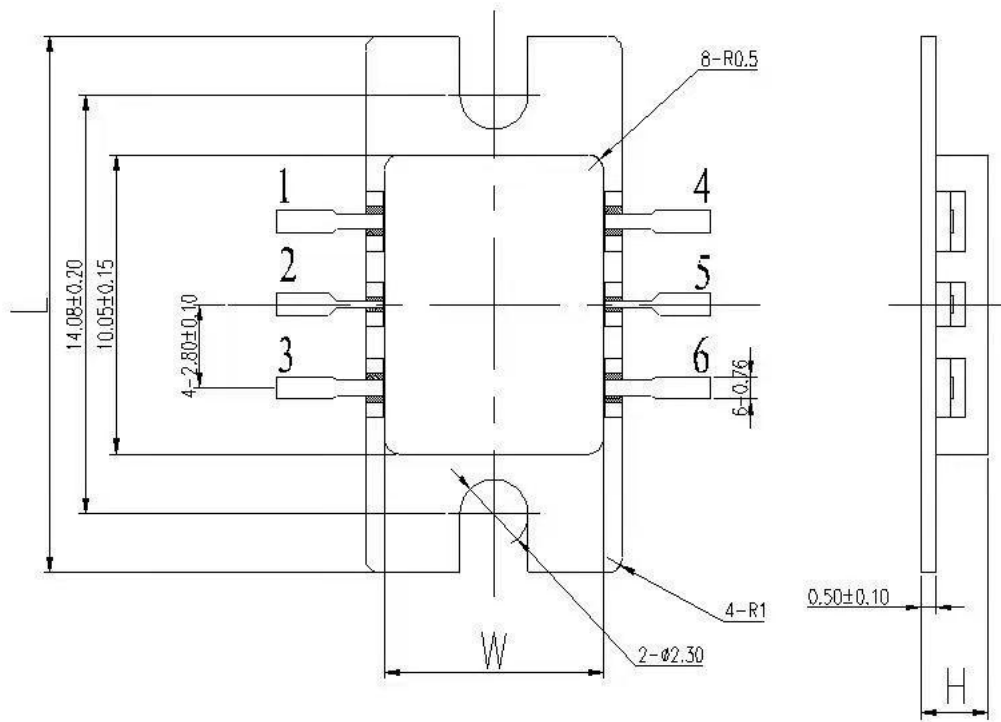
## Application Circuit:



## 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.