# AnserRF

#### **Internal Matching GaN Power Amplifier Module**

### ANMI044050-P40

#### C-band matched GaN power amplifier module

#### **Features:**

Frequency: 4.4~5GHz

Saturated Output Power: Psat≥40dBm

PowerGain: Gain≥26dB Efficiency: η=45%(type)

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

#### **Description:**

ANMI044050-P40 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 4.4~5GHz. 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 (TC=25°C, Not recommended working under this condition):

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

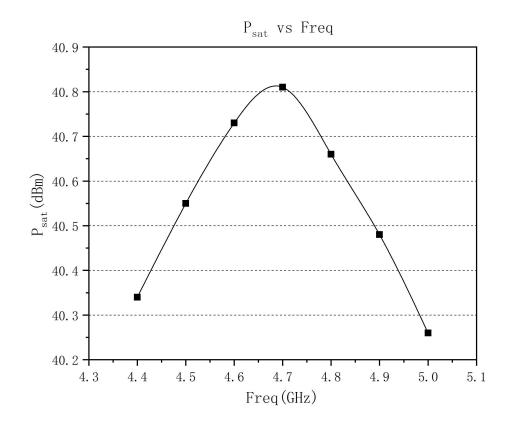


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### **Electrical Characteristics:**

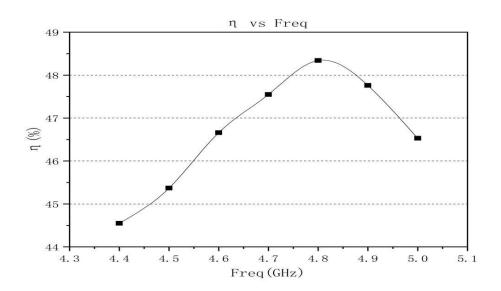
|                        |        |                              |      | Value |      |      |
|------------------------|--------|------------------------------|------|-------|------|------|
|                        | Symbol | Test condition               | Min  | Тур   | Max  | Unit |
| Drain Current          | ldsr   |                              | -    | 0.8   | -    | Α    |
| Saturated Output Power |        |                              | 40   | -     | -    | dBm  |
| Gain                   | Gp     | Pin: 14dBm<br>Freq: 4.4~5GHz | 26   | -     | -    | dB   |
| Efficiency             | η      |                              | -    | 45    | -    | %    |
| Gain Flatness          | ΔG     |                              | -0.8 | -     | +0.8 | dB   |

# **Typical Curve:**

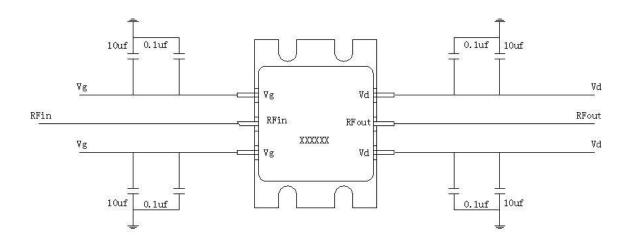




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# **Application Circuit:**



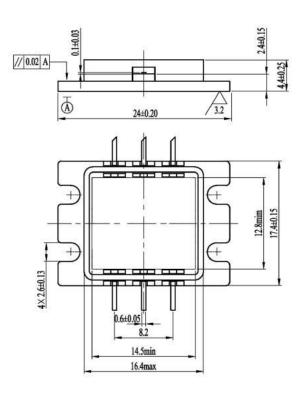


### **Internal Matching GaN Power Amplifier Module**

#### **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.