

ANGI044050-P50

C-band matched GaN Device

Features:

Frequency: 4.4~5GHz

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

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

Add-Efficiency: $\text{PAE} \geq 45\%$

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

Description:

ANGI044050-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 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.

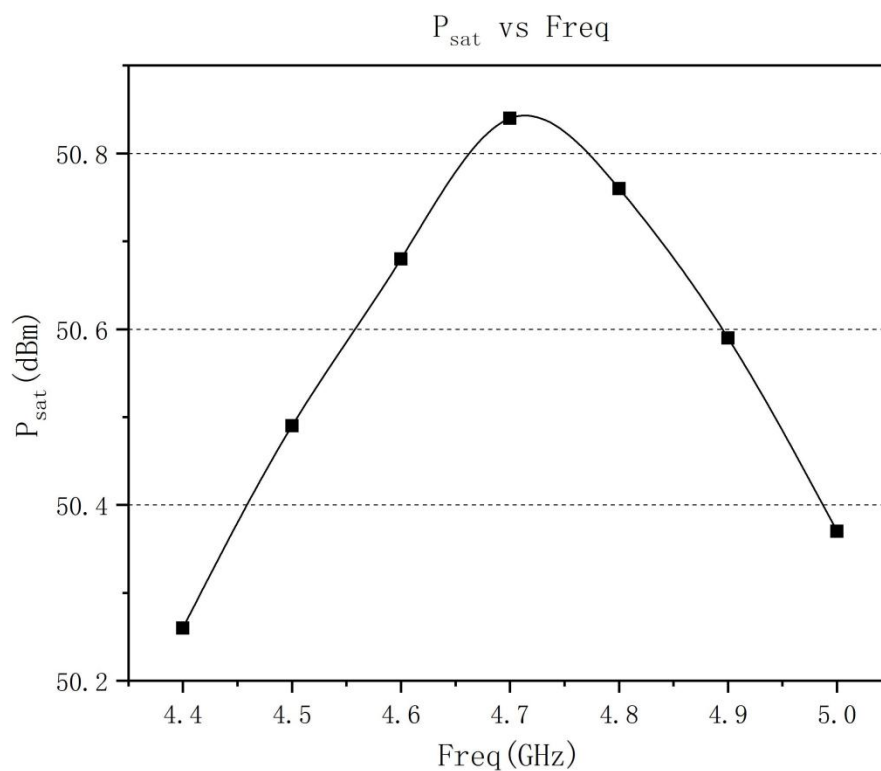
Maximun Ratings (TC=25°C, Not recommended working under this condition):

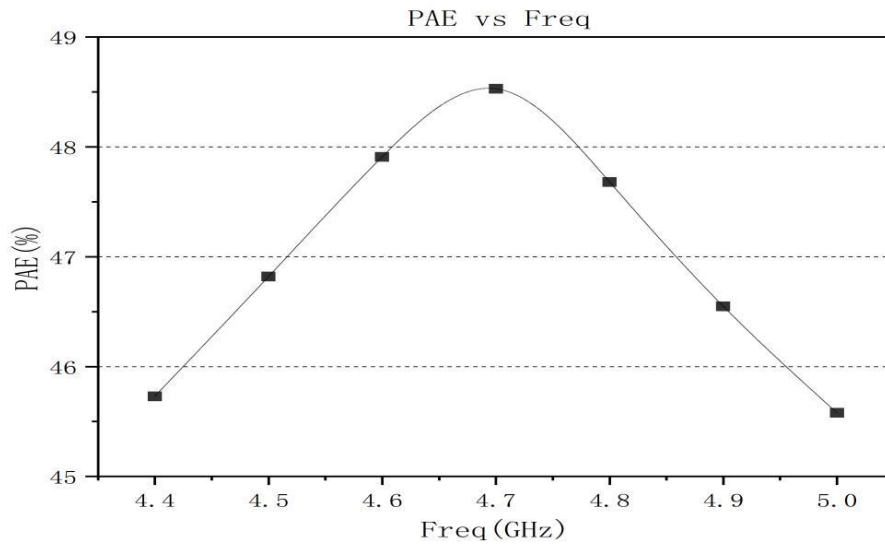
| | Symbol | Value | Unit |
|--------------------------------------|-----------|-------------|------|
| Voltage between source and drain | V_{DS} | 40 | V |
| Voltage between gate and source | V_{GS} | -5 | V |
| Storage Temperature Range | T_{stg} | -65 to +175 | °C |
| Drain and Source Channel Temperature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

Electrical Characteristics:

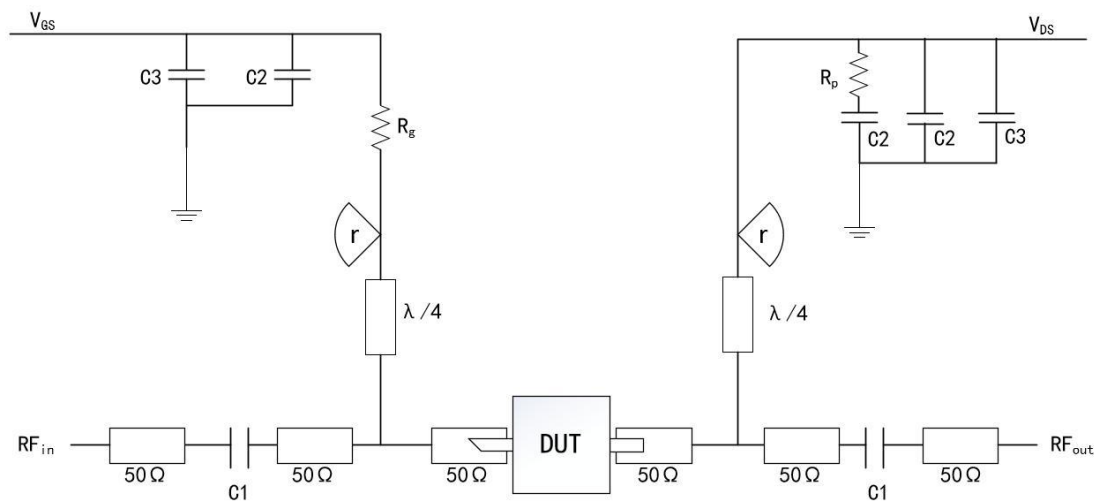
| | Symbol | Test condition | Value | | | Unit |
|------------------------|------------|---|-------|-----|------|------|
| | | | Min | Typ | Max | |
| Drain Current | Idsr | Vds=28V CW. Pin: 40dBm Freq: 4.4~5GHz | - | 7 | - | A |
| Saturated Output Power | Psat | | 50 | - | - | dBm |
| Gain | Gp | | 10 | - | - | dB |
| Add-Efficiency | PAE | | 45 | - | - | % |
| Gain Flatness | ΔG | | -0.8 | - | +0.8 | dB |

Typical Curve:





Application Circuit:



DUT: Device to be tested

C1:4.7pF

R_p :51Ω

C2:1000pF

R_G :15Ω

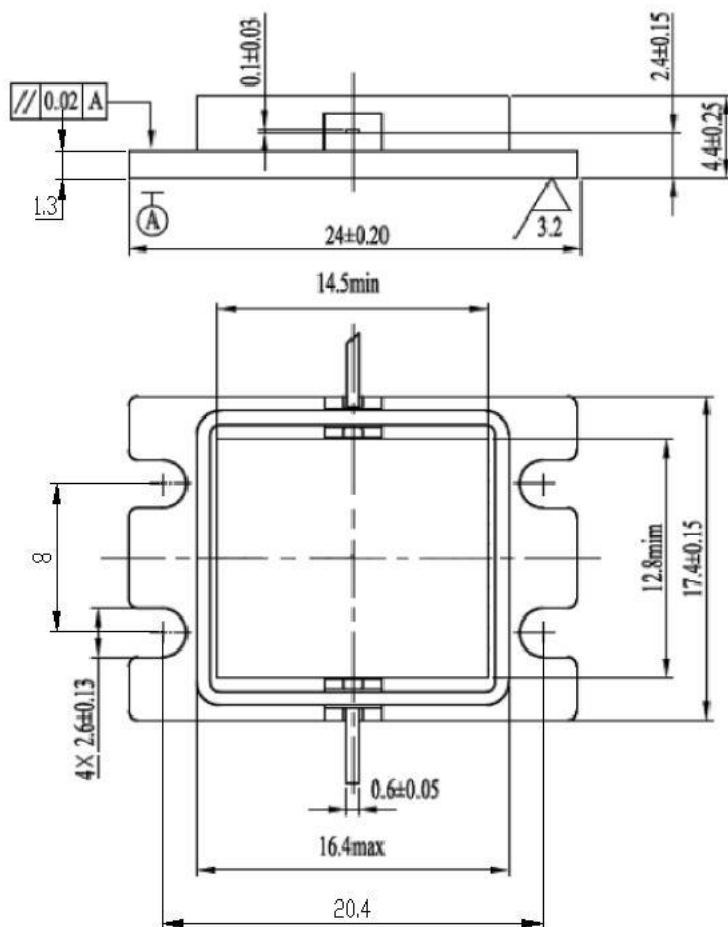
C3:100uF

r (radius)≈5.8mm(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.