

Performance Characteristics

- Frequency band: 42GHz to 46GHz
- Gain: 17dB
- Saturated output power: 43dBm
- Power added efficiency: 25%
- +24V @ 3.0A (static)

Product Introduction

The GaN millimeter wave power amplifier chip covers a frequency range of 42-46GHz, with a power gain of 17dB, a saturated output power of 43dBm, and a power added efficiency of 25%. The chip size is 4.02mm × 5.57mm × 0.1mm.

Electrical Parameters (TA = +25°C)

Parameter	Min	Typ	Max	Unit
Frequency Range		42-46		GHz
Saturated Output Power		43		dBm
Power Gain		17		dB
Power Added Efficiency		25		%
Operating Current		4.0		A

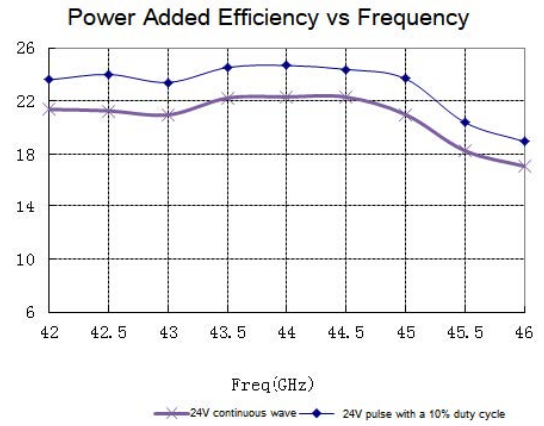
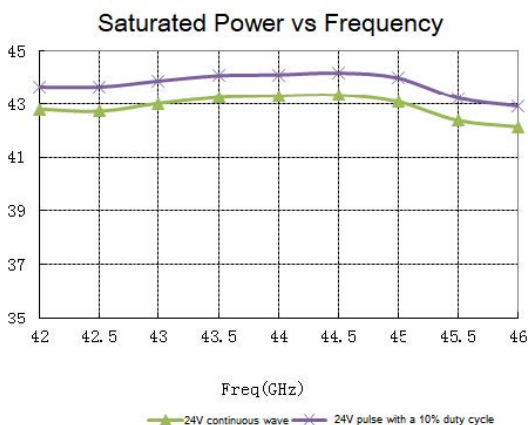
Note:1) All chips have undergone 100% DC testing on the chip.

2) Test conditions: VD=24V (duty cycle 10%, pulse width 100 μs, and continuous wave), VG=-1.2V, Pin=26dBm

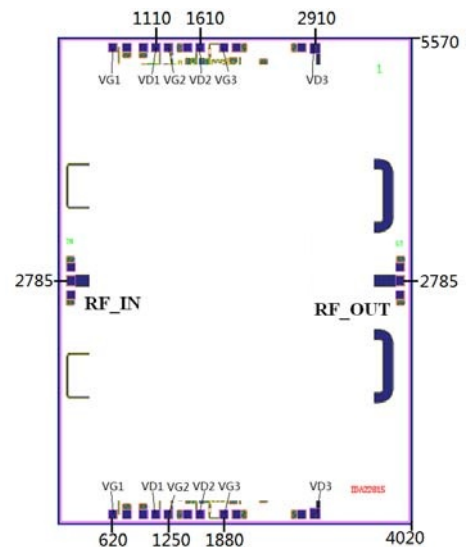
Use Restriction Parameters

Symbol	Parameter	Value
V _{DS}	Positive drain voltage	+26V
V _{GS}	Negative gate voltage	-6V
P _{in}	Input continuous wave power	+32dBm
T _{ch}	Channel temperature	+175°C
T _{STG}	Storage temperature	-65°C ~ +150°C

Test Data (24V (duty cycle 10%, pulse width 100 μs, and continuous wave), VG=-1.2V, Pin=26dBm)

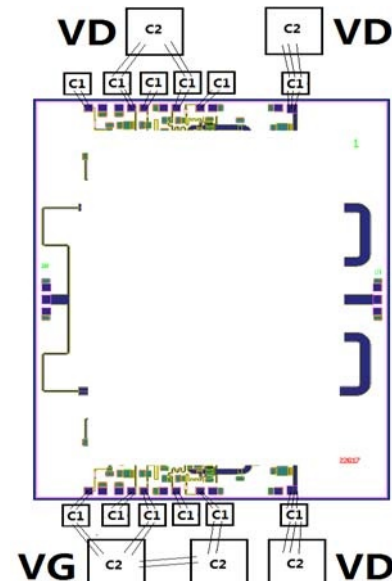


External Dimensions



Note: The dimensions indicated in the figure are in micrometers (μm); Input/output pressure point size 100 × 120 μm²; The size of the bias pressure point is 100 × 100 μm².

Suggested Assembly Diagram



Note: Peripheral capacitor C1: 100pF, C2: 1000pF.