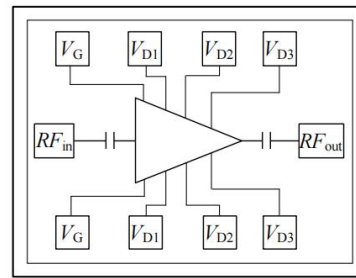


Performance

- Frequency: 18~26.5GHz
- Typical Signal Gain: 24dB
- Typical Pout: 41.5dBm
- Typical Operating Current: 2.8A
- Bias: 20V, -1.8V
- Technology: 0.15um HEMT
- Size: 4.2*3.0mm*0.05mm

Function Diagram

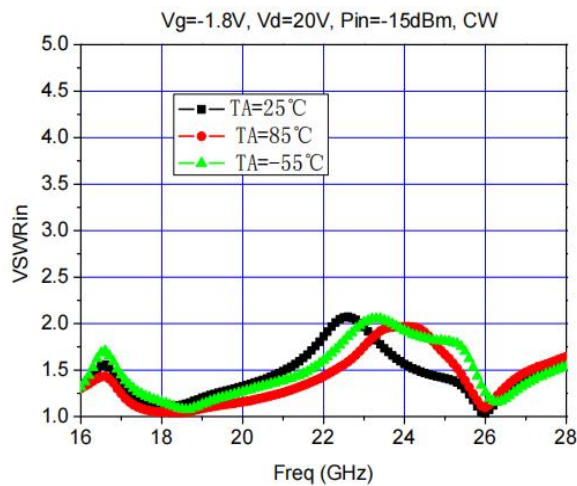


Electrical Specifications (TA=25°C, Vd=20V, Vg= -1.8V, F:18~26.5GHz)

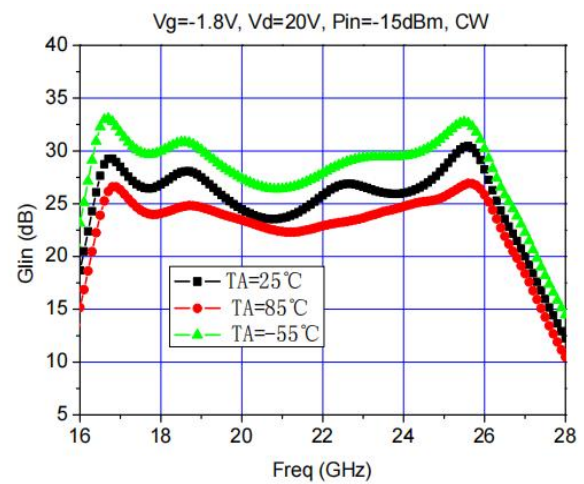
| Symbol | Parameter | Min | Typical | Max | Unit |
|--------|--------------------|-----|---------|-----|------|
| G | Small Signal Gain | - | 24 | - | dB |
| Gp | Power Gain | - | 16.5 | - | dB |
| Pout | Saturated Power | - | 41.5 | - | dBm |
| Id | Dynamic Current | - | 2.8 | - | A |
| Rth | Thermal Resistance | - | 2.2 | - | °C/W |

Test Curves

VSWRin@ Different Temp

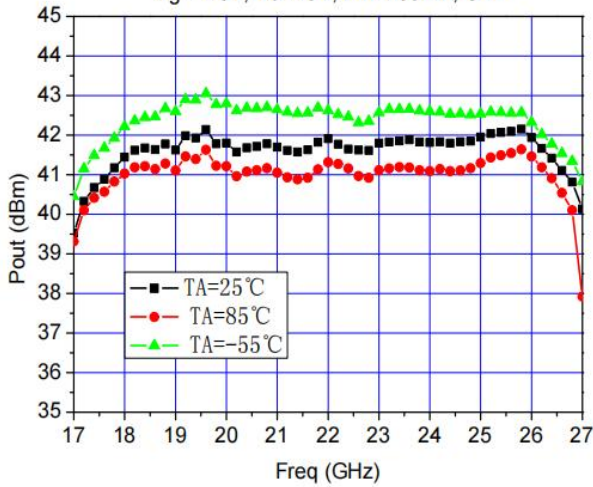


Gain@ Different Temp



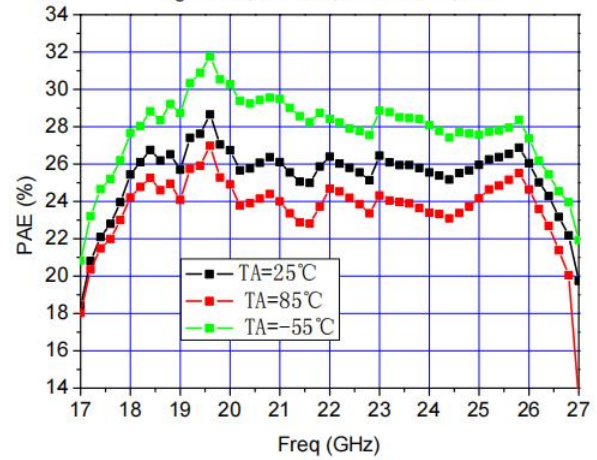
Pout@ Different Temp

Vg=-1.8V, Vd=20V, Pin=25dBm, CW



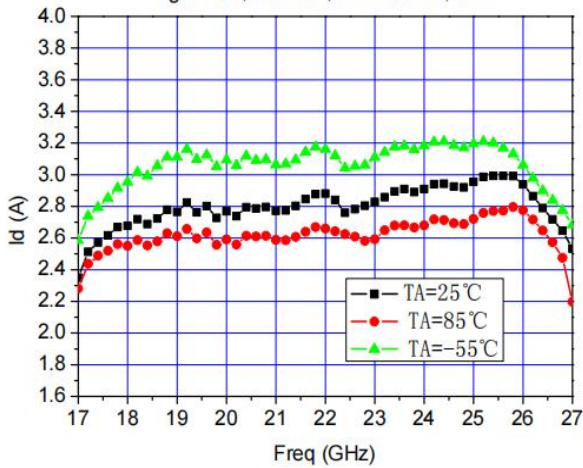
PAE@ Different Temp

Vg=-1.8V, Vd=20V, Pin=25dBm, CW



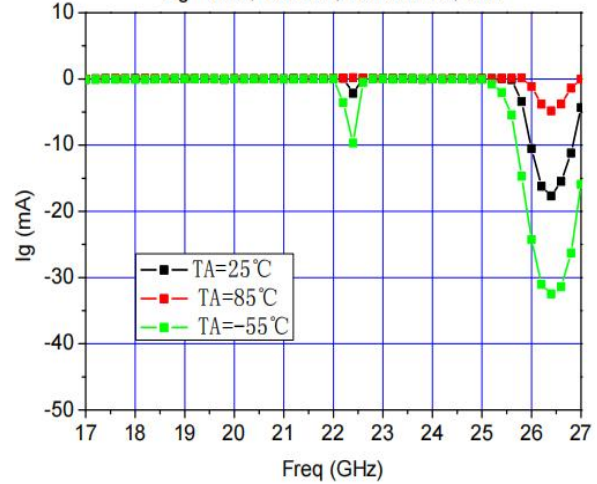
Id@ Different Temp

Vg=-1.8V, Vd=20V, Pin=25dBm, CW



Ig@ Different Temp

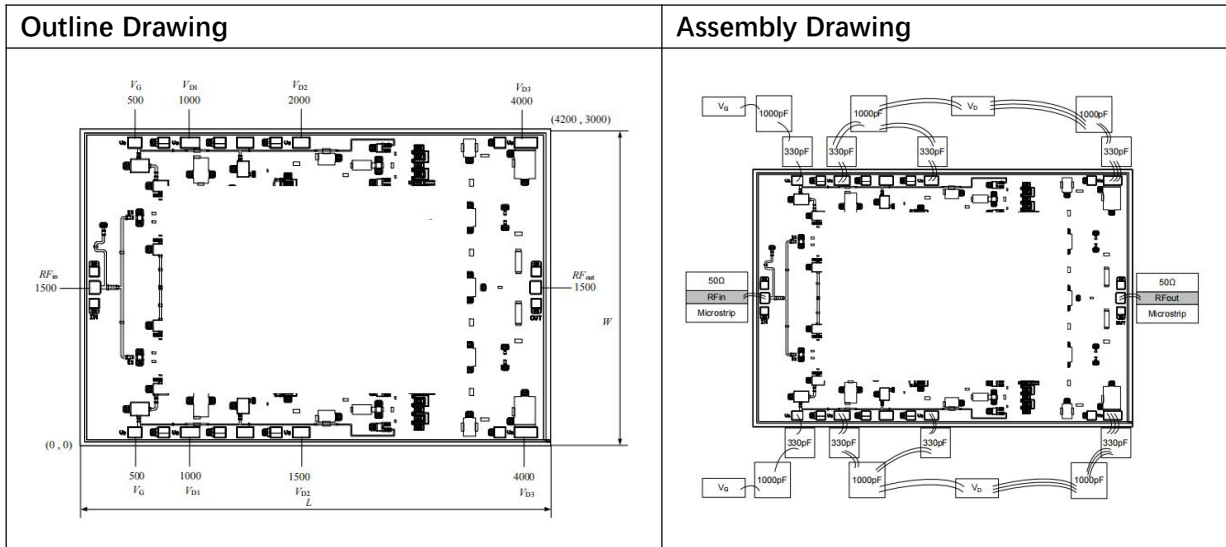
Vg=-1.8V, Vd=20V, Pin=25dBm, CW



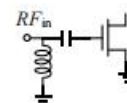
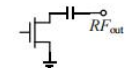
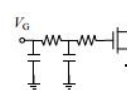
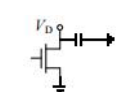
Absolute Max Ratings (TA=25°C)

| Symbol | Parameter | Value | Remark |
|--------|----------------------|-----------|----------------------|
| Vd | Drain Voltage | 28V | |
| Id | Drain Current | 4.5A | |
| Pd | DC Power | 126W | |
| Pin | Input Power | 30dBm | |
| Tch | Channel Temperature | 175°C | |
| Tm | Mounting Temperature | 290°C | 1 min, N2 Protection |
| Tstg | Storage Temperature | -65~150°C | |

Exceeding any one or combination of these limits may cause permanent damage.



Pads Definition

| Pad | Description | Equivalent Circuit |
|-------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| RFIn | RF Signal input, connect to 50ohm system, block capacitor is needed if there's external DC applied on this pad. |  |
| RFout | RF Signal output, connect to 50ohm system, no need block capacitor. |  |
| VG | Amp gate bias, external 330pF, 1000pF capacitor is needed |  |
| VD1、VD2、VD3 | Amp drain bias, external 330pF, 1000pF capacitor is needed |  |
| GND | Bottom must connect to RF and DC ground | |