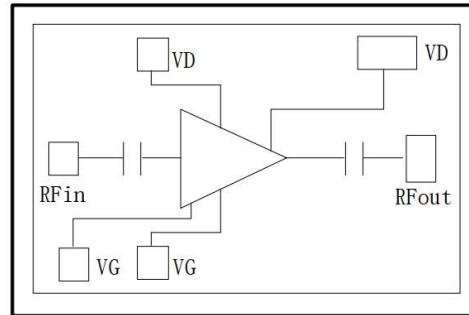


Performance

- Frequency: 1.9~2.5GHz
- Typical Signal Gain: 34dB
- Typical Pout: 42dBm@28V
- Typical PAE: 55%
- Bias: 28V, -2.0V (Typ.)
- Technology: 0.25um HEMT
- Mode: CW
- Size: 3.2*2.3mm*0.08mm

Function Diagram

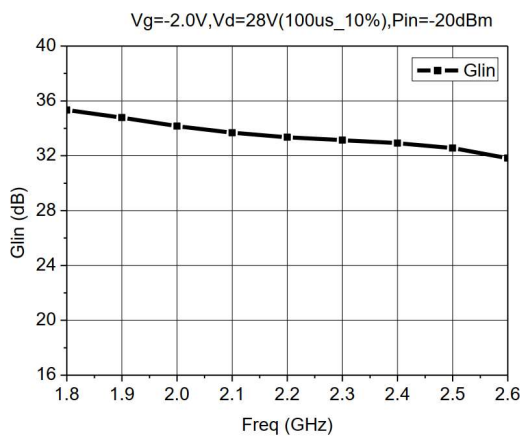


Electrical Specifications (TA=25°C, Vd=28V, Vg=-2V, F: 1.9~2.5GHz, 1ms, 10%)

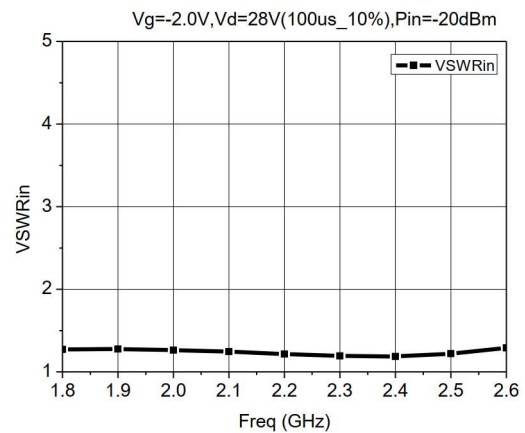
| Symbol | Parameter | Min | Typical | Max | Unit |
|--------|------------------------|-----|---------|-----|------|
| G | Small Signal Gain | - | 34 | - | dB |
| Gp | Power Gain | - | 22 | - | dB |
| Pout | Saturated Power | - | 42 | - | dBm |
| PAE | Power Added Efficiency | - | 55 | - | % |

Test Curves

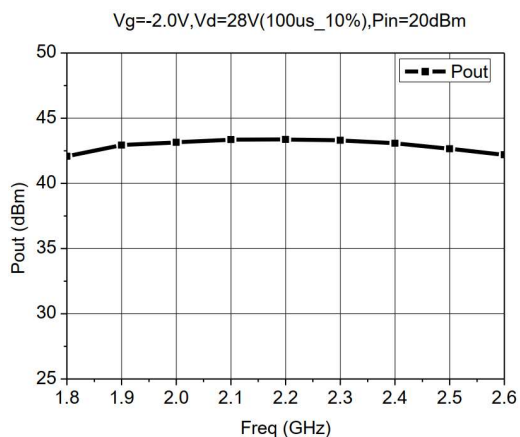
Small Signal Gain vs. Freq



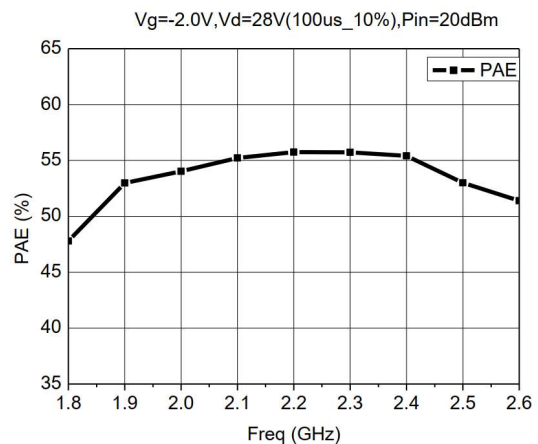
Input VSWR vs. Freq

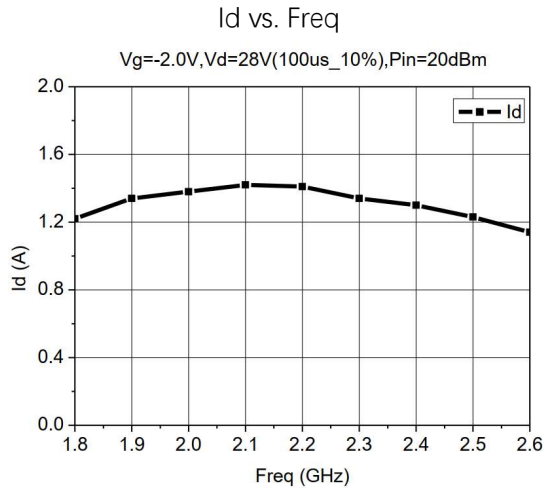


Output Power vs. Freq



PAE vs. Freq

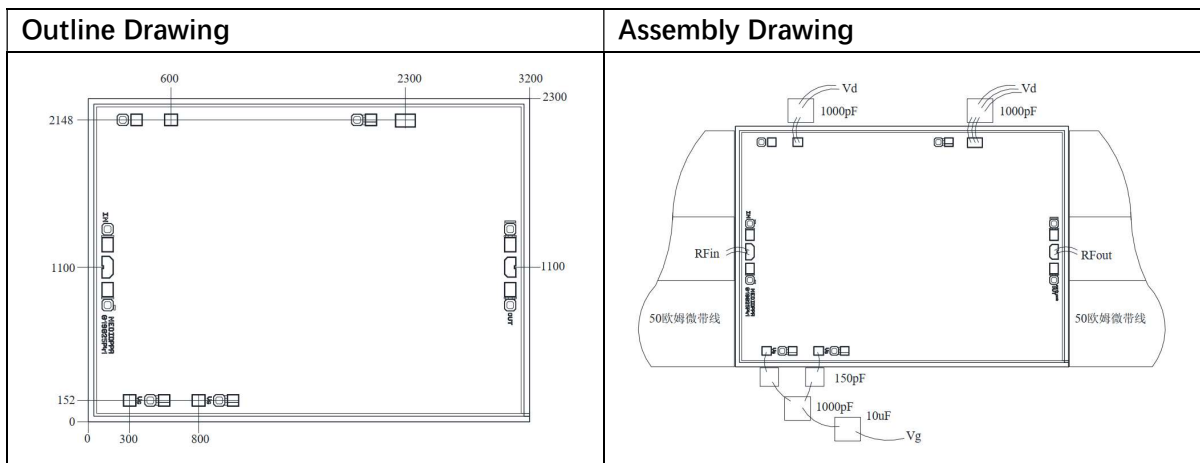




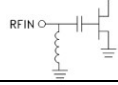

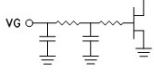


Absolute Max Ratings (TA=25°C)

| Symbol | Parameter | Value | Remark |
|--------|----------------------|-----------|--------------------|
| Vd | Drain Voltage | 32V | |
| Vg | Gate Voltage | -10V | |
| Pd | DC Power | 45W | |
| Pin | Input Power | 30dBm | |
| Tch | Channel Temperature | 225°C | |
| Tm | Mounting Temperature | 310°C | 30s, 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 when 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 150pF, 1000Pf, 10uF capacitor is needed |  |
| VD | Amp drain bias, external 1000pF capacitor is needed |  |
| GND | Bottom must connect to RF and DC ground |  |