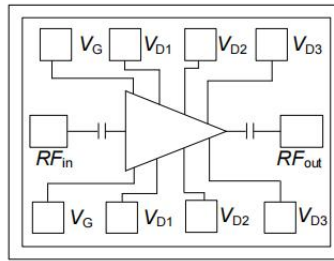


### Performance

- Frequency: 33~37GHz
- Typical Signal Gain: 24.5dB
- Typical Pout: 38.5dBm@22V
- Typical PAE: 24%
- Bias: 22V, -2.2V
- Technology: 0.15um HEMT
- Size: 3.5\*2.5mm\*0.05mm

### Function Diagram

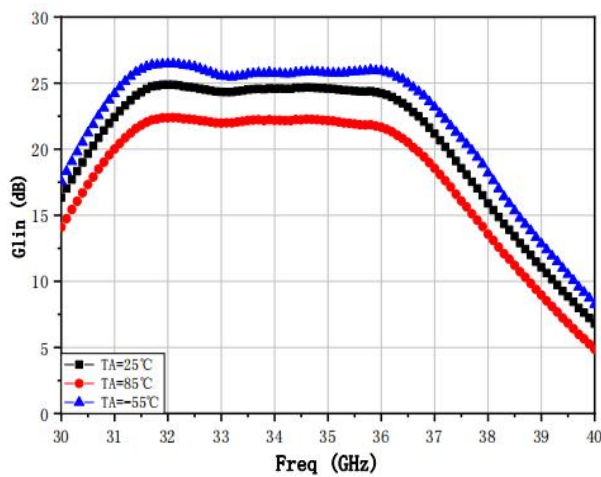


### Electrical Specifications (TA=25°C, Vd=22V, Vg=-2.2V, F:33~37GHz, Pin=21dBm)

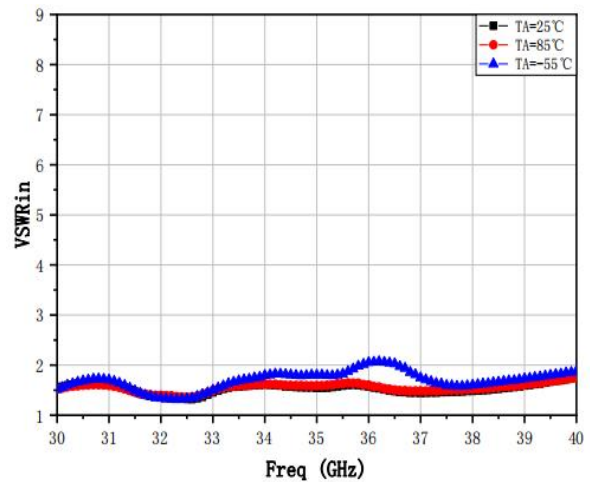
| Symbol | Parameter              | Min | Typical | Max | Unit |
|--------|------------------------|-----|---------|-----|------|
| G      | Small Signal Gain      | -   | 24.5    | -   | dB   |
| Gp     | Power Gain             | -   | 17.5    | -   | dB   |
| Pout   | Saturated Power        | -   | 38.5    | -   | dBm  |
| PAE    | Power Added Efficiency | -   | 23      | -   | %    |
| Id     | Dynamic Current        | -   | 1.3     | -   | A    |

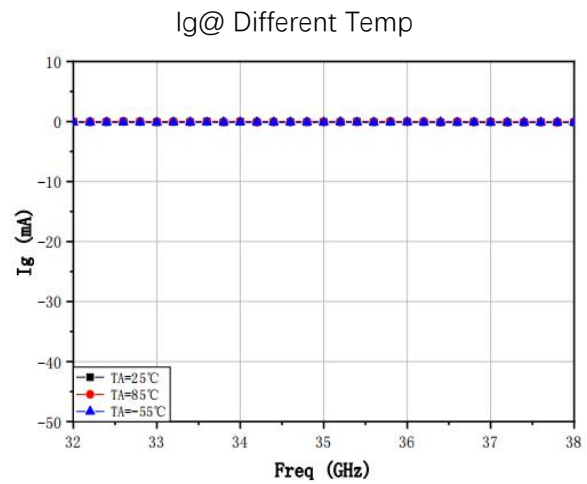
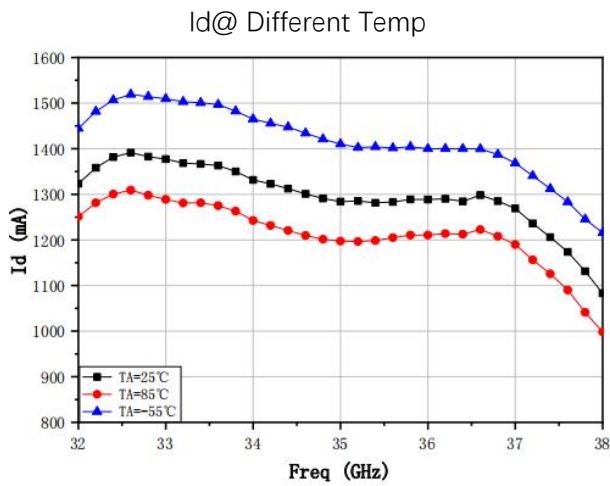
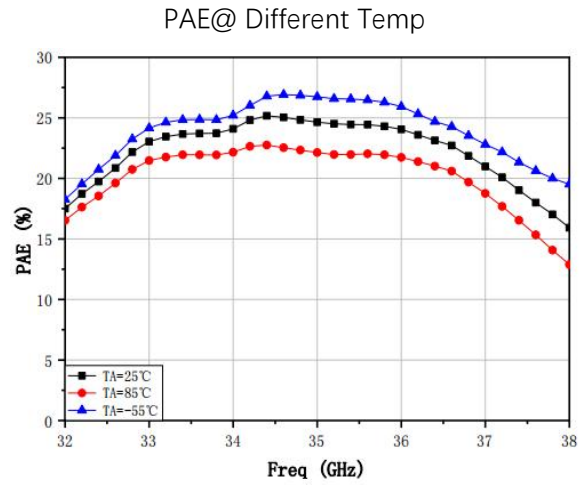
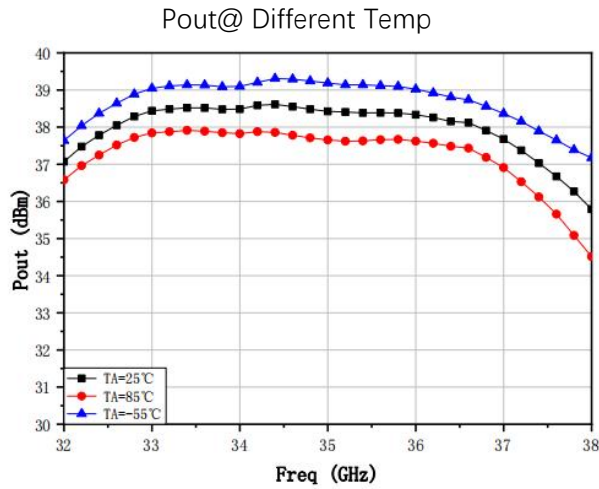
### Test Curves

Small Signal Gain@ Different Temp



VSWRin@ Different Temp

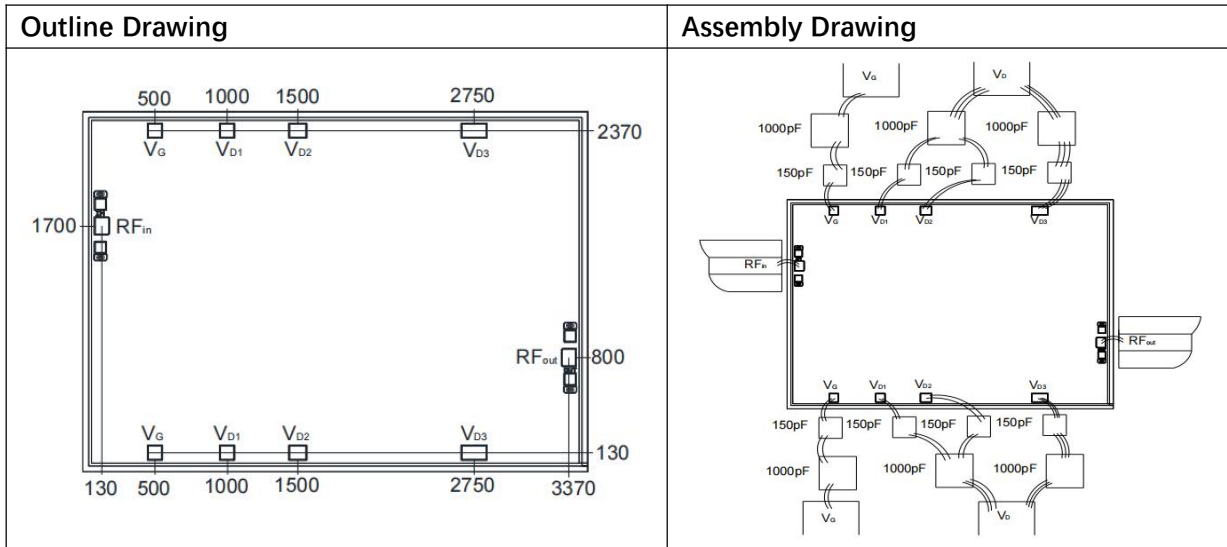




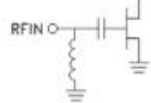

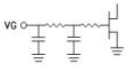


### Absolute Max Ratings (TA=25°C)

| Symbol | Parameter            | Value     | Remark               |
|--------|----------------------|-----------|----------------------|
| Vd     | Drain Voltage        | 28V       |                      |
| Id     | Drain Current        | 2.5A      |                      |
| Pd     | DC Power             | 65W       |                      |
| Pin    | Input Power          | 30dBm     |                      |
| Tch    | Channel Temperature  | 175°C     |                      |
| Tm     | Mounting Temperature | 300°C     | 1 min, N2 Protection |
| Tstg   | Storage Temperature  | -55~150°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, no need block capacitor.  |   |
| RFout       | RF Signal output, connect to 50ohm system, no need block capacitor. |  |
| VG          | Amp gate bias, external 150pF, 1000pF capacitor is needed           |  |
| VD1、VD2、VD3 | Amp drain bias, external 150pF, 1000pF capacitor is needed          |  |
| GND         | Bottom must connect to RF and DC ground                             |  |