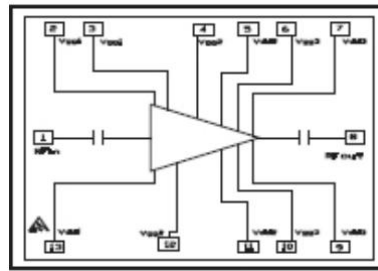


Performance

- Frequency: 15~17GHz
- Typical Signal Gain: 30dB
- Typical Pout: 42.5dBm@28V
- Typical PAE: 35%
- Bias: 28V, -2V (Typ.)
- Technology: 0.20um HEMT
- Size: 3.55*2.0mm*0.08mm

Function Diagram

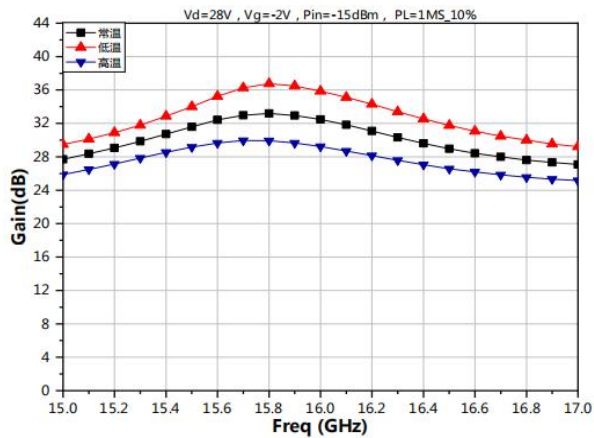


Electrical Specifications (TA=25 °C ,Vd=28V,SW=28V,SW1=0V,Pulse,SW2=28V,Idq=1.5A,F: 15~17GHz)

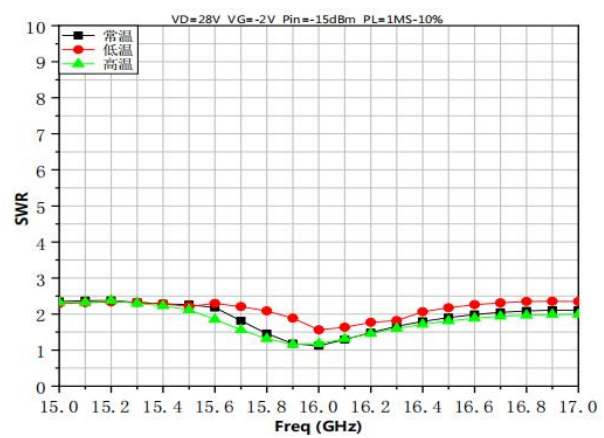
| Symbol | Parameter | Min | Typical | Max | Unit |
|--------|------------------------|-----|---------|-----|------|
| G | Small Signal Gain | - | 30 | - | dB |
| Gp | Power Gain | - | 22.5 | - | dB |
| Pout | Saturated Power | - | 42.5 | - | dBm |
| PAE | Power Added Efficiency | - | 35 | - | % |

Test Curves

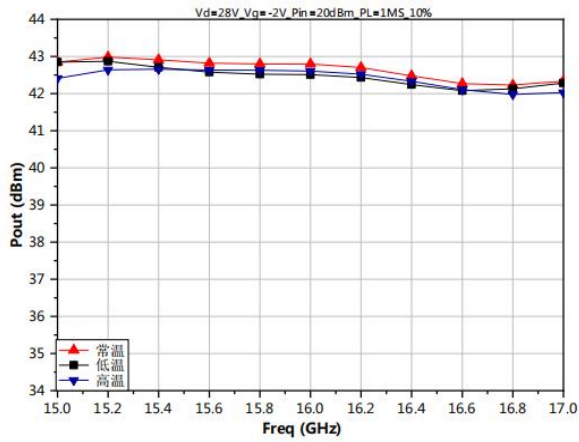
Small Signal Gain@ Different Temp



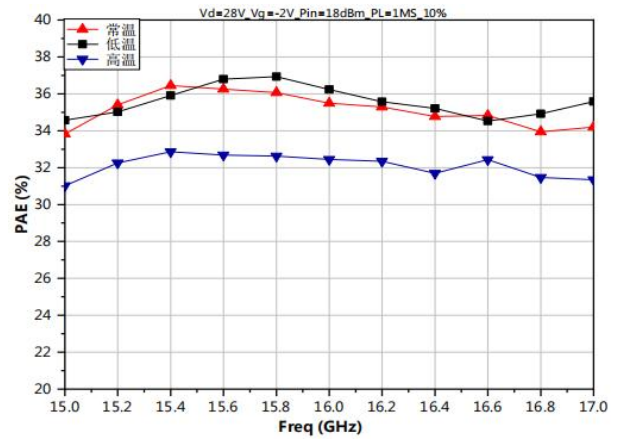
VSWRin@ Different Temp



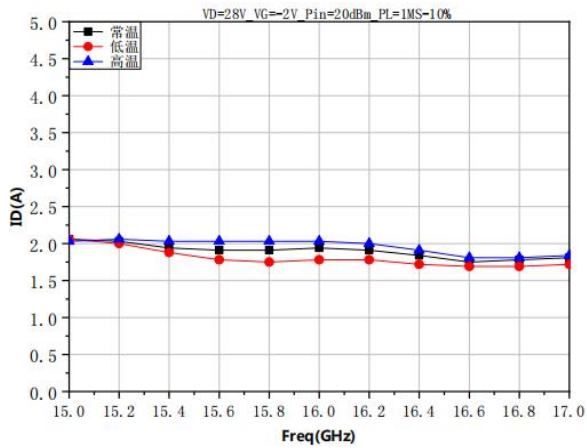
Pout@ Different Temp



PAE@ Different Temp



Id



Absolute Max Ratings (TA=25°C)

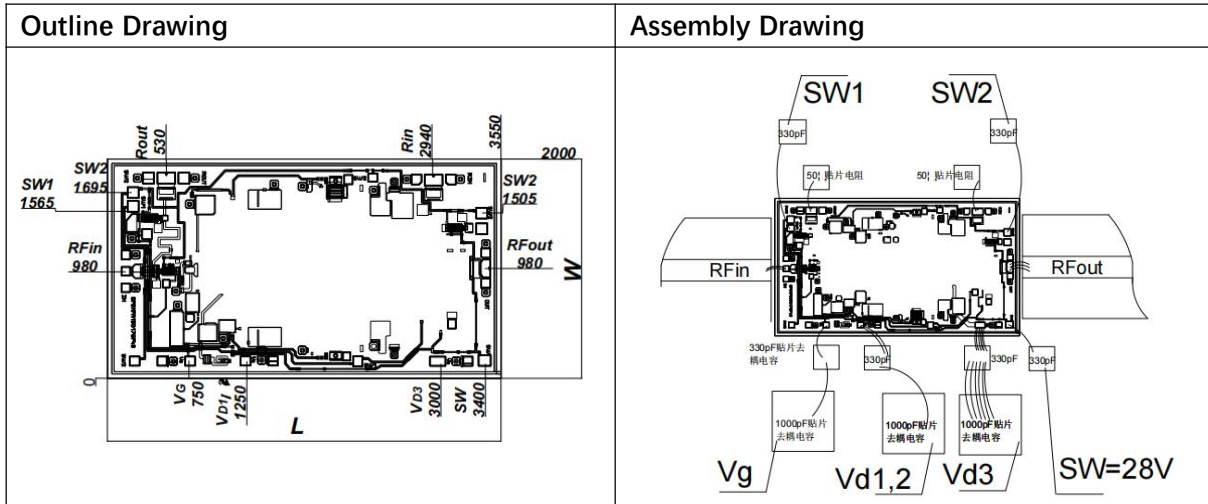
| Symbol | Parameter | Value | Remark |
|--------|----------------------|-----------|----------------------|
| Vd | Drain Voltage | 32V | |
| Id | Drain Current | 3.0A | |
| Vg | Gage Voltage | -10V | |
| Ig | Gate Current | 30mA | |
| Pd | DC Power | 80W | |
| Pin | Input Power | 25dBm | |
| Tch | Channel Temperature | 175°C | |
| Tm | Mounting Temperature | 310°C | 1 min, N2 Protection |
| Tstg | Storage Temperature | -55~175°C | |

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

Truth Table

| SW | SW1 | SW2 | Status |
|----|-----|-----|-----------------------------|
| 1 | 0 | 1 | Transmitting link operation |
| 1 | 1 | 0 | Receiving link operation |

Note: "0" is low level 0V, "1" is high level 28V.



Pads Definition

| Pad | Description | Bonding pad size (Typ.) |
|----------|---|-------------------------|
| RFin | Transmitting channel PA input bonding pad | 88um*88um |
| RfOut | Transmitting channel PA output bonding pad | 150um*88um |
| Rin | Receiving channel LNA input bonding pad | 150um*88um |
| Rout | Receiving channel LNA output bonding pad | 150um*88um |
| Vg | Gate voltage power up bonding pad | 88um*88um |
| VD1, VD2 | VD1, VD2 drain voltage power up bonding pad | 88um*88um |
| VD3 | VD3 drain voltage power up bonding pad | 88um*88um |
| SW | Switch control voltage power up bonding pad | 88um*88um |
| SW1 | Switch control voltage power up bonding pad | 88um*88um |
| SW2 | Switch control voltage power up bonding pad | 88um*88um |