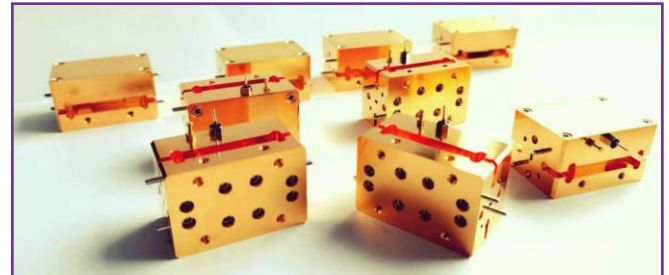


## Power Amplifier Module

### Product Features

- Frequency: 27-31GHz
- Psat: 42.5dBm@26%PAE
- Small Signal Gain: 20dB
- DC: 22V@0.9A



### Electrical Specs(V=+22V, I=0.77A, T<sub>A</sub>=25°C):

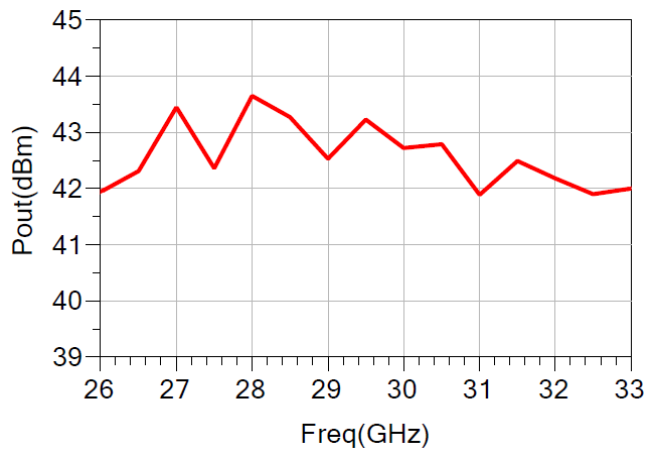
| Parameter                  | Minimum | Typical | Maximum |
|----------------------------|---------|---------|---------|
| Frequency Range(GHz)       | 27      |         | 31      |
| Small Signal Gain(dB)      |         | 20      |         |
| Gain Flatness(dB)          |         | ±1      |         |
| Psat(dBm)                  |         | 42.5    |         |
| PAE(%)                     |         | 26      |         |
| Input Power(dBm)           |         | 27      | 34      |
| Input VSWR                 |         | 2       | 3       |
| Output VSWR                |         | 2       | 3       |
| DC Power Supply(drain, Vd) |         | +22     | +26     |
| DC Power Supply(gate, Vg)  |         | -2.3    | -5      |
| Saturation Current (A)     |         | 3.6     | 4.0     |
| Operating Temperature(°C)  | -55     | 25      | 85      |
| Storage Temperature(°C)    | -65     |         | 150     |

### Mechanical Specs:

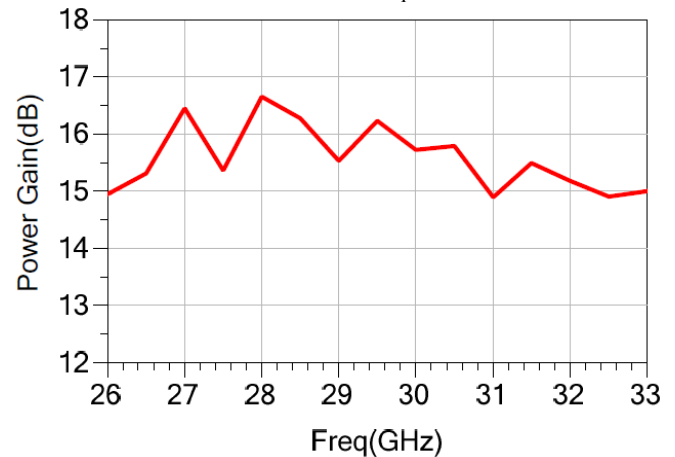
| Item         | Specification                       |
|--------------|-------------------------------------|
| Input, IN    | WR28 Waveguide with UG-599/U Flange |
| Output       | WR28 Waveguide with UG-599/U Flange |
| Size (W×L×H) | 50mm×50mm×32mm                      |

## Measured Performance(TA=+25℃, Vd=22V, Id=900mA):

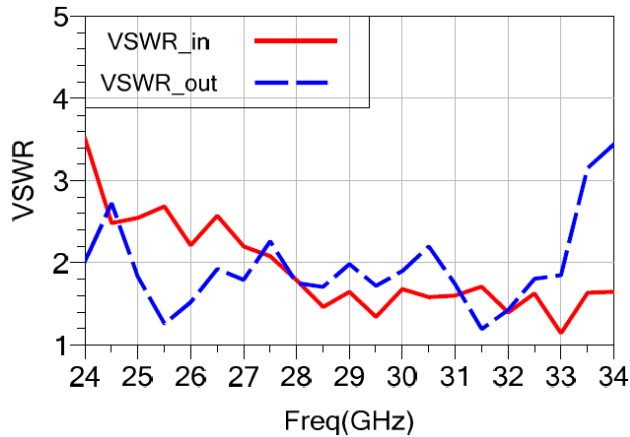
Psat vs. Freq. @Pin=27dBm



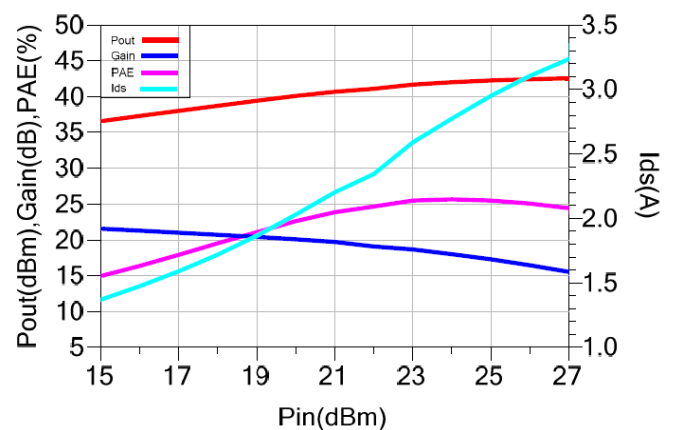
Power Gain vs. Freq.



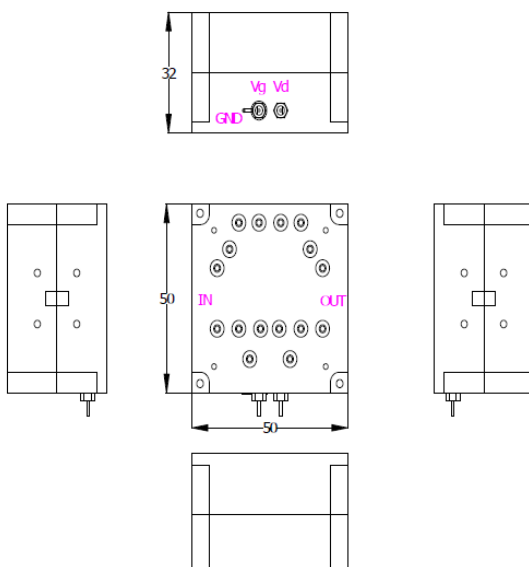
Input/Output VSWR vs. Freq.



Pout, Gain, Efficiency, Current vs. Input Power @freq.=29GHz



## Mechanical Outline:



| Symbol | Function                  |
|--------|---------------------------|
| IN     | RF input, WR28 waveguide  |
| OUT    | RF output, WR28 waveguide |
| Vd     | Drain Voltage Terminal    |
| Vg     | Gate Voltage Terminal     |
| GND    | Grounding                 |

### Notes:

1. Electrostatic protection: Please strictly comply with ESD protection requirements to avoid electrostatic damage;
2. Please keep heat dissipation when using the module;
3. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.