

Features

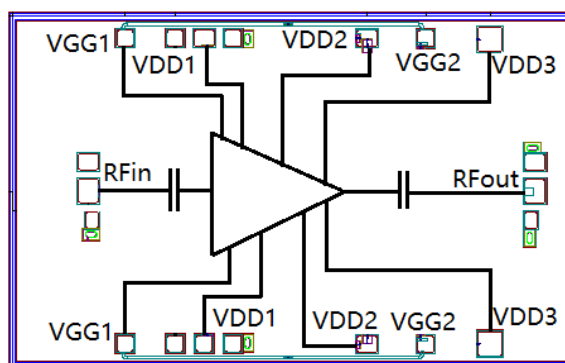
Gain: 28dB

Psat: 33dBm

Supply Current: 700mA@+6V, -0.75V

Chip Size: 2900μm×1800μm

Functional Diagram:



General Description

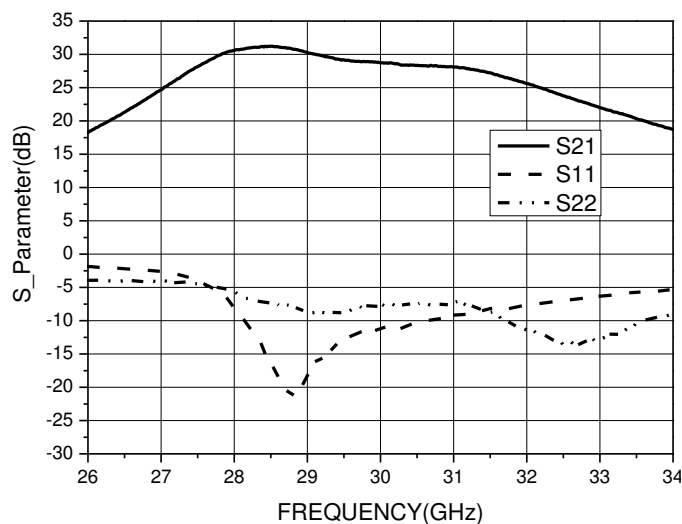
MWG212 is a power amplifier designed and manufactured by GaAs pHEMT process. This power amplifier can cover 28–31 GHz, using +6V power supply, normal operating current is 700 mA, providing 29 dB small signal gain, typical saturated output power is 33 dBm.

Electrical Specifications, $T_A = +25^{\circ}\text{C}$, $V_d = +6\text{V}$, $V_g = -0.75\text{V}$

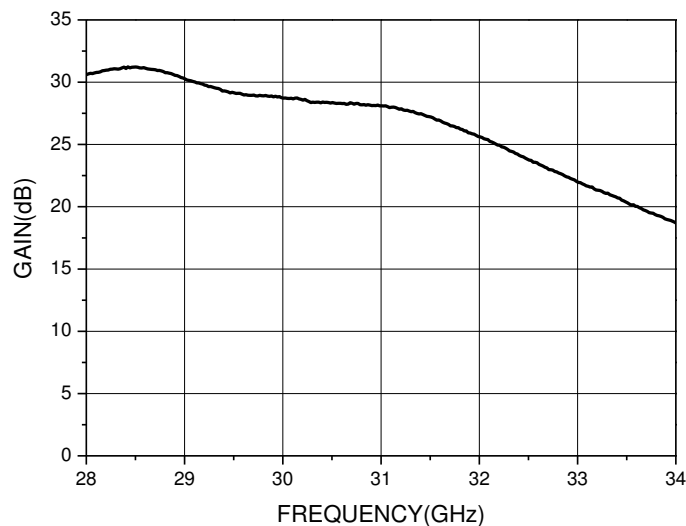
Parameter	Min	Typ	Max	Units
Bandwidth	29		32	GHz
Gain		29		dB
Input Return Loss		13		dB
Output Return Loss		8		dB
Saturation Output Power		33		dBm
Supply Current (@Vdd=6V, Vg= -0.75V)		700		mA

Test Results

S_Parameter

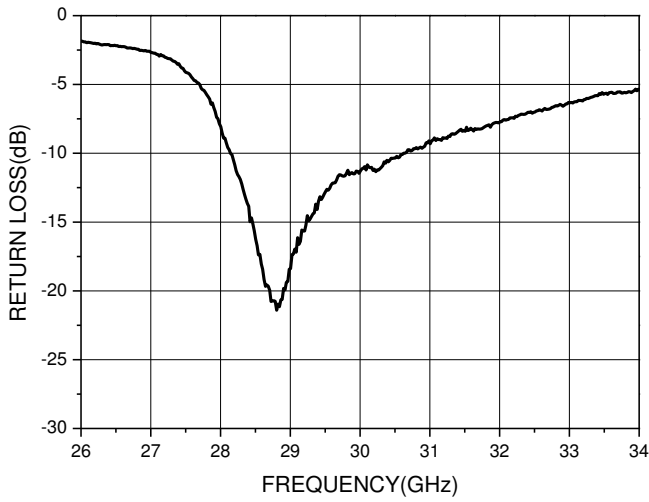


Gain

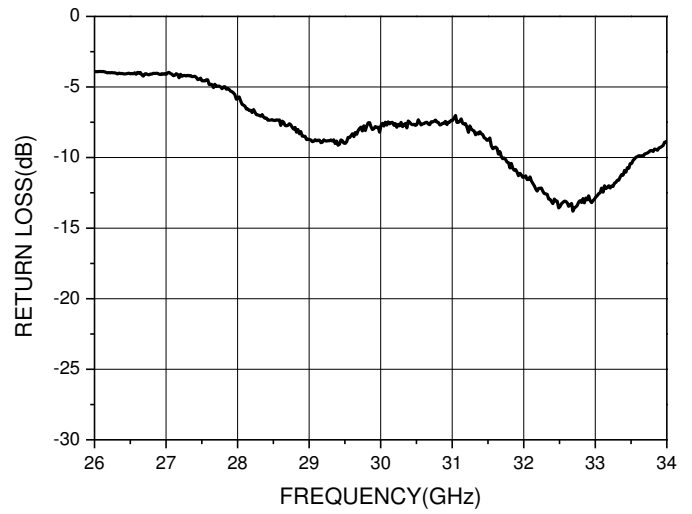




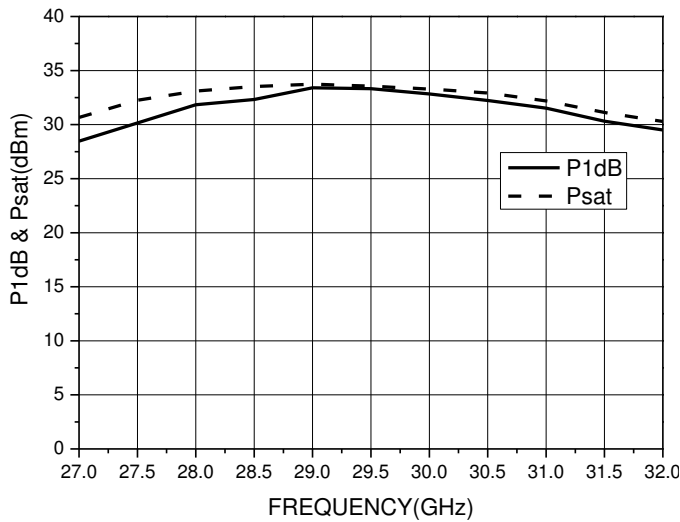
Input Return Loss



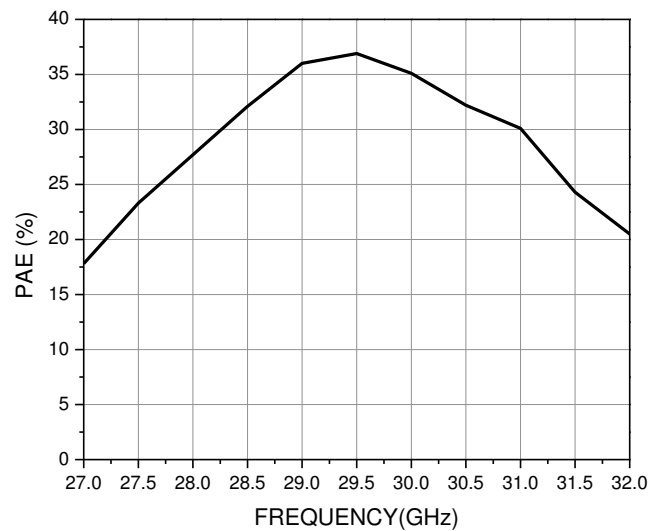
Output Return Loss



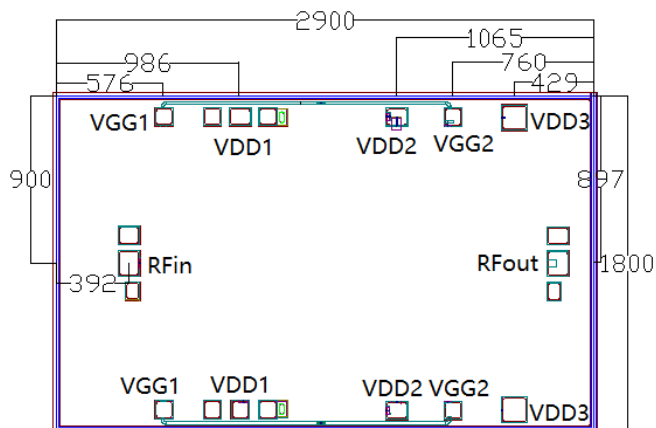
Output P1dB & Psat



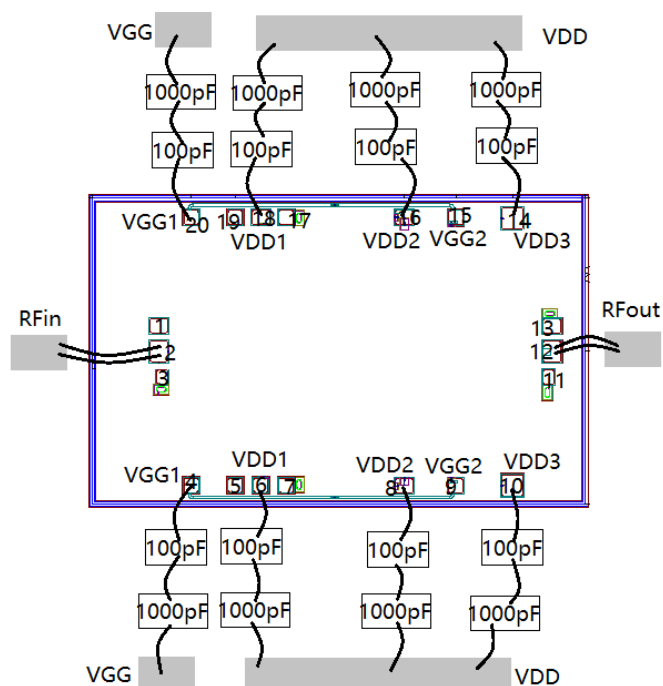
PAE



Chip Size:



Assembly Diagram:



Pin Description

Pin Number	Features	Description
1, 3, 5, 7, 11, 13, 17, 19	GND	Connect to RF/DC ground
2	RF/IN	RF input, external 50Ohm system
12	RF/OUT	RF output, external 50Ohm system
6, 8, 10, 14, 16, 18	Vdd	Power supply of Amplifier, external 100pF capacitor
4, 9, 15, 20	Vgg	Vgg of Amplifier, external 100pF capacitor

Absolute Maximum Ratings

Collector Bias Voltage	+ 6V
RF Input Power	+ 13dBm
Storage Temperature	-65 - +150°C
Operating Temperature	-55 - +85°C