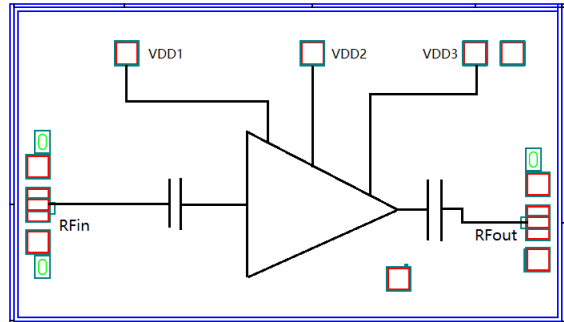


Features

Gain: 15dB
 Output P1dB: 15.5dBm
 Supply Current: 86mA@+5V
 Chip Size: 2190 μ m \times 1250 μ m

Functional Diagram



General Description

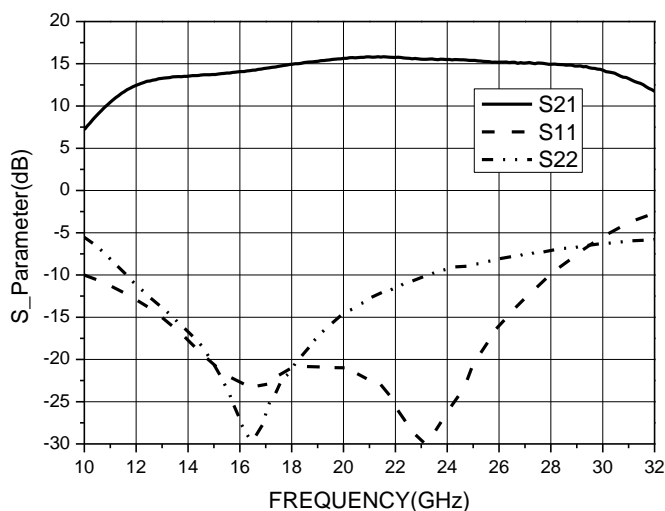
MWG114 is a drive amplifier product designed and manufactured by GaAs pHEMT technology. This power amplifier can cover 12-30 GHz operating frequency band, using +5V voltage Vdd power supply, normal operating current 86 mA, providing 15 dB small signal gain, output P1dB can reach 15.5 dBm.

Electrical Specification, TA = +25°C, Vdd=+5V

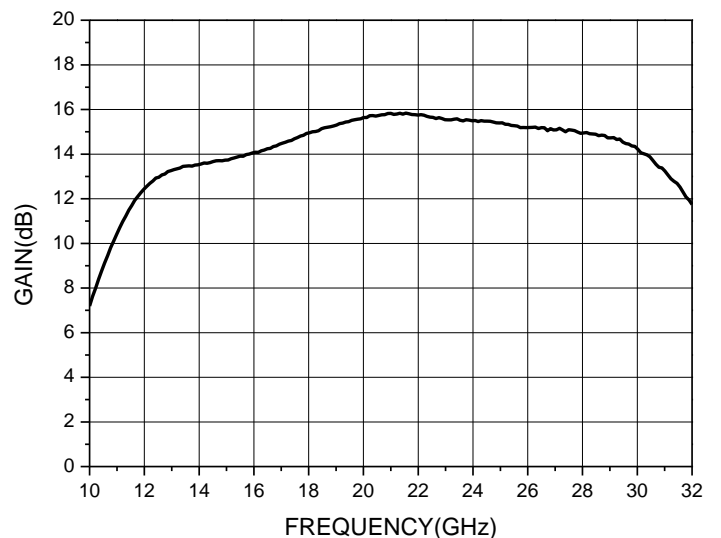
Parameter	Min	Typ	Max	Units
Bandwidth	12		30	GHz
Gain		15		dB
Input Return Loss		18		dB
Output Return Loss		14		dB
Output Power for 1dB Compression		15.5		dBm
Supply Current (@Vdd=5V)		86		mA

Test Results

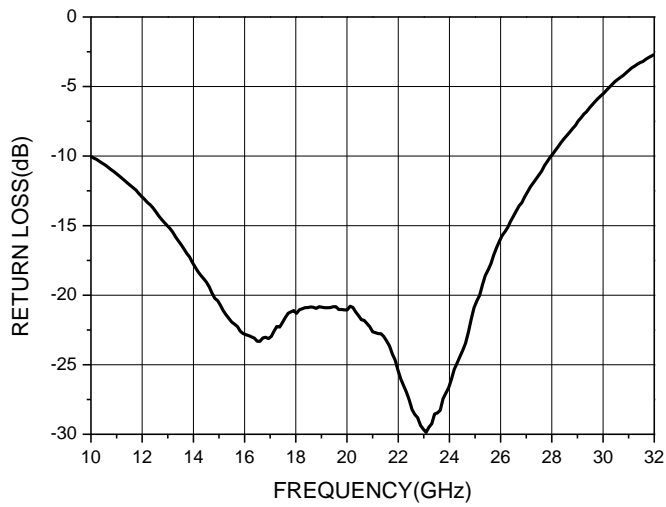
S_Parameter



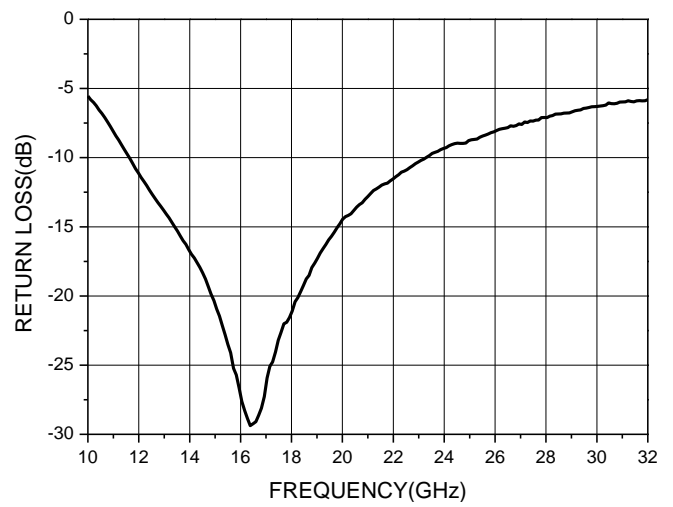
Gain



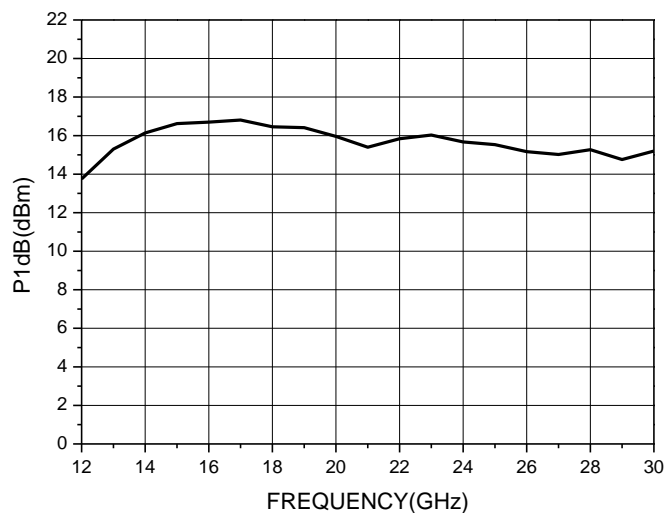
Input Return Loss



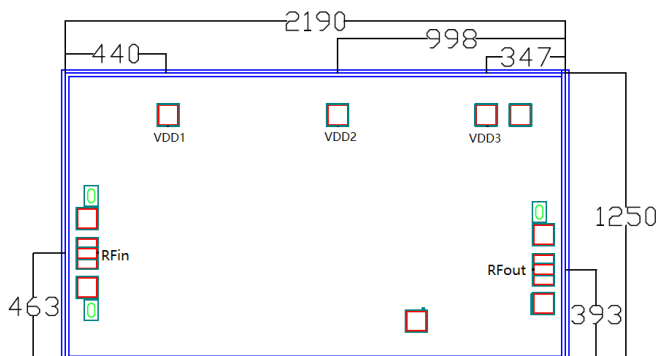
Output Return Loss



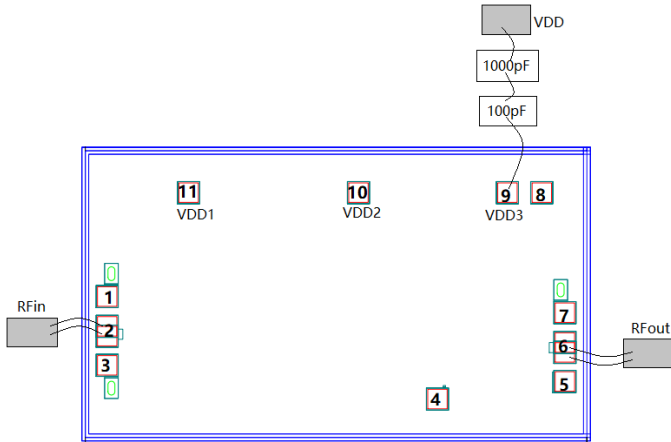
Output P1dB



Chip Size



Assembly Diagram



Pin Description

Pin NO.	Function	Description
1、3、4、5、7、8	GND	Connect to RF/DC Ground
2	RF/IN	RF input, external 50Ohm system
6	RF/OUT	RF output, external 50Ohm system.
9、10、11	Vdd	Amplifier power supply plus 100pF capacitor

Absolute Maximum Ratings

Voltage	5.5V
RF Input Power	10dBm
Storage Temperature	-65 - +150°C
Operating Temperature	-55 - +85°C