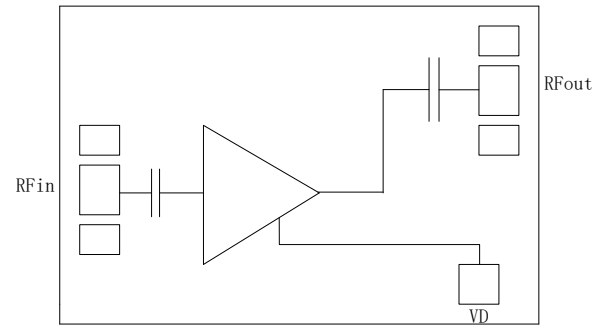


## Features

Noise Figure: 5.8dB  
Gain: 4dB  
Output P1dB: +2dBm  
Supply Current: +5V @7mA  
Chip Size: 1200 $\mu$ m $\times$ 800 $\mu$ m

## Functional Diagram



## General Description

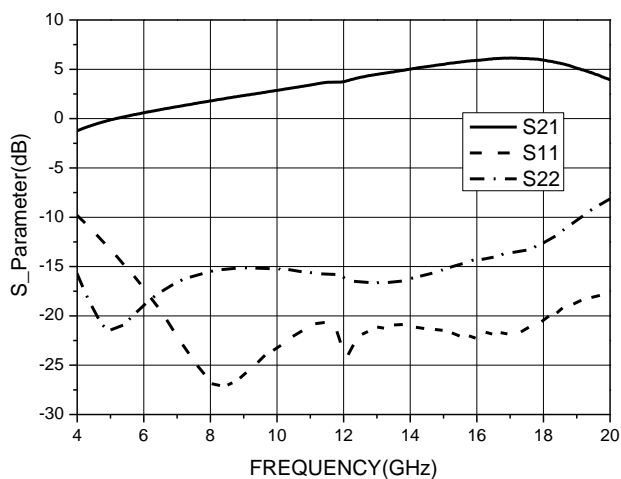
MWG112 is a drive amplifier designed and manufactured by GaAs pHEMT process and P1dB 2dBm output. The drive amplifier operates at 6-18GHz, powered by +5V voltage Vdd. The normal operating current is 7mA, providing 4dB small signal gain. The gain is positive slope to compensate for the decrease of high frequency gain.

## Electrical Specification, TA = +25°C, Vdd = +5.0V

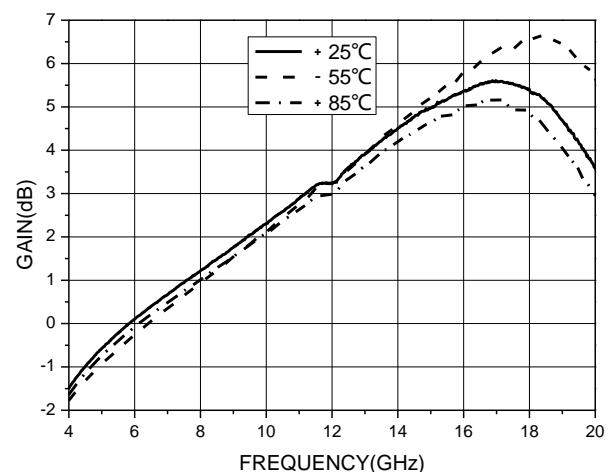
Parameter	Min	Typ	Max	Units
Bandwidth	6		18	GHz
Noise Figure		5.8		dB
Gain		4		dB
Gain Flatness		$\pm 2.5$		dB
Input Return Loss	18	22		dB
Output Return Loss	13	15		dB
Output Power for 1dB Compression		2		dBm
Supply Current (@Vdd=5V)		7		mA

## Test Results

S\_Parameter

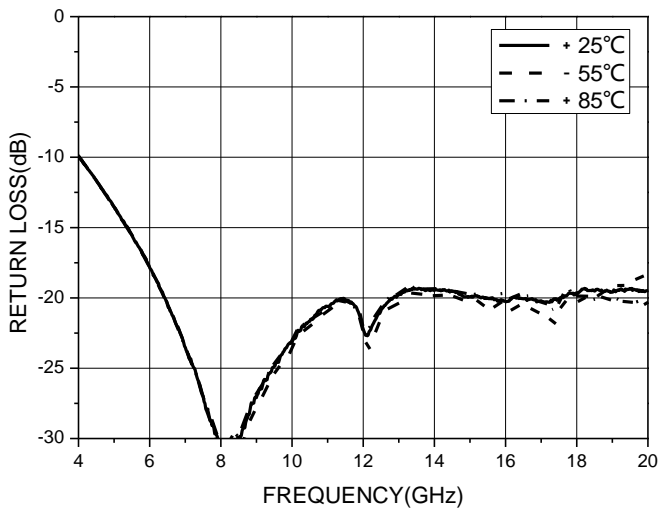


Gain

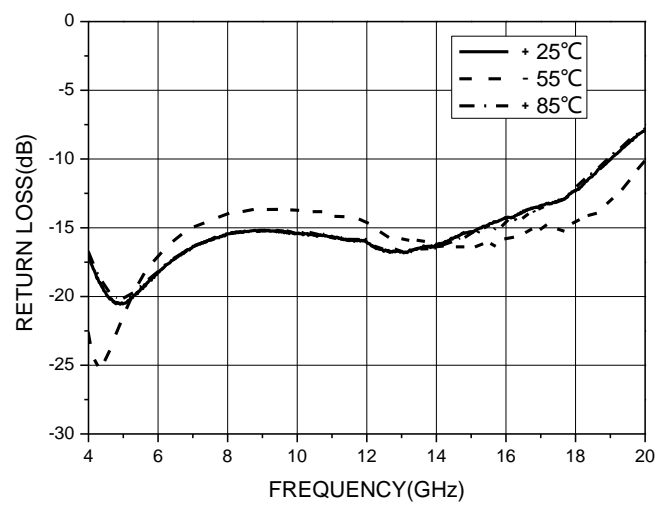




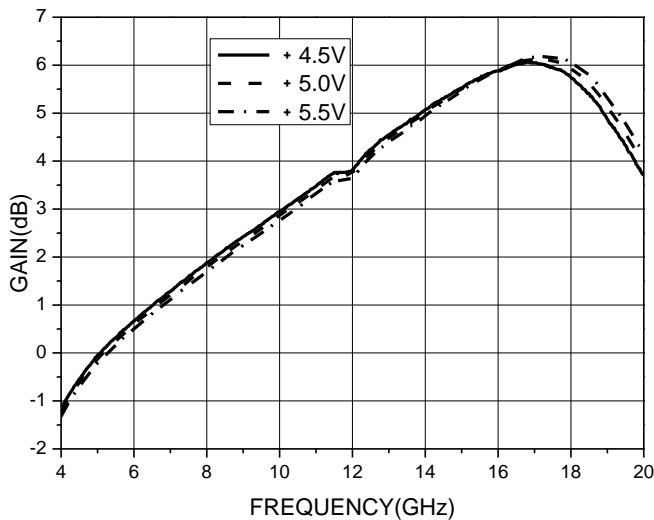
Input Return Loss



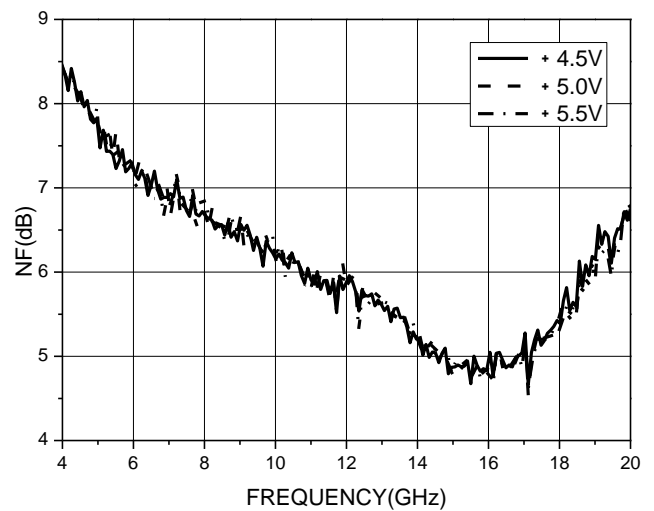
Output Return Loss



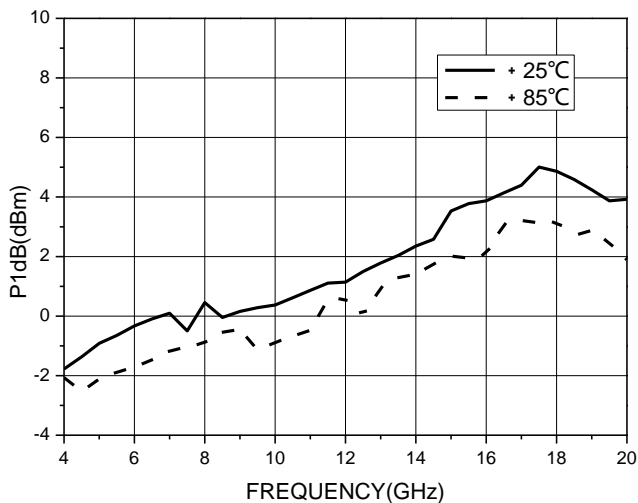
Gain



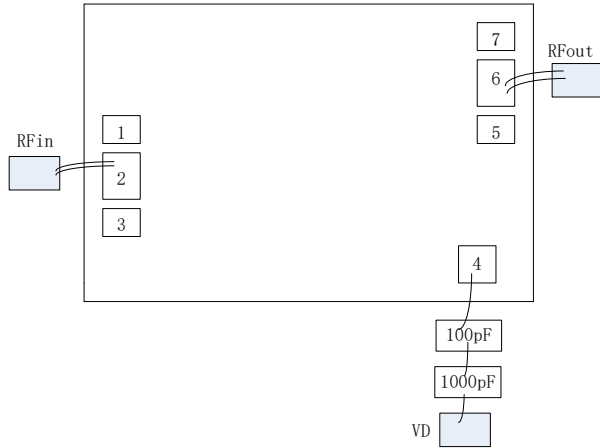
Noise Figure



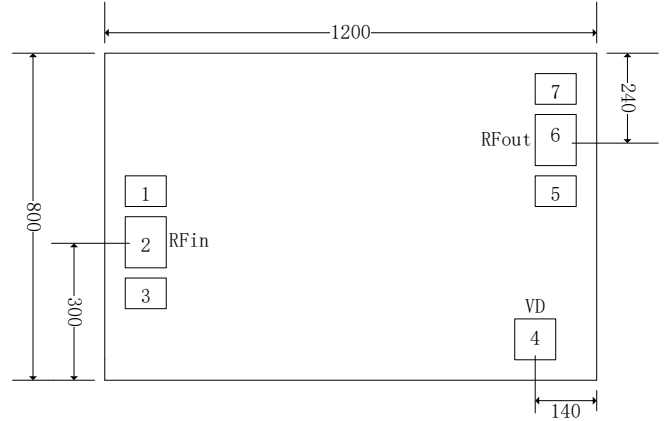
Output P1dB



## Assembly Diagram



## Chip Size



## Pin Description

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

## Absolute Maximum Ratings

Voltage	6V
RF Input Power	4dBm
Storage Temperature	-65 - +150°C
Operating Temperature	-55 - +85°C