Features

Freq: 0.9～1.3GHz

Gain: 36dB

Noise Figure: 3dB

Output Power for 1 dB Compression:25.5dBm

Supply Voltage: +8V

Supply Current: 162mA

Chip Size:1.3mm×1.25mm×0.1mm

General Description

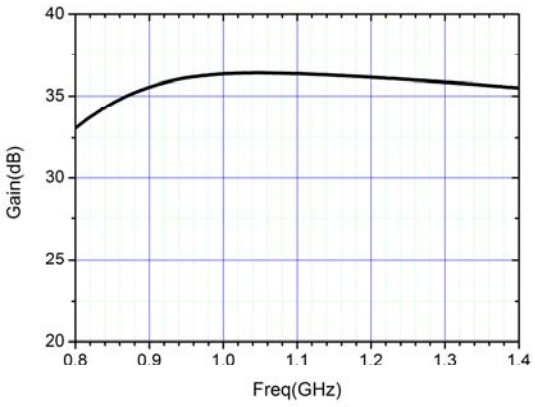
The HG122FA-3 is a GaAs pHEMT MMIC Driver Amplifier that is operating from 0.9 to 1.3GHz. The amplifier has been optimized to provide 36dB gain, 3dB noise figure and 25.5dBm output power for 1dB compression.

Electrical Specifications(T_A=25 ℃,Vdd= +8V).

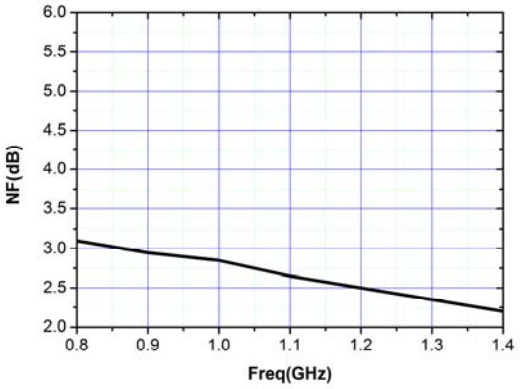
Parameter	Min.	Typ.	Max.
Freq(GHz)		0.9～1.3	
Gain (dB)	—	36	—
Gain Flatness (dB)	—	±0.5	—
Input VSWR	—	1.5	—
Output VSWR	—	1.2	—
Noise Figure(dB)	—	3	—
Output Power for 1 dB Compression(dBm)	—	25.5	—

Measured Performance

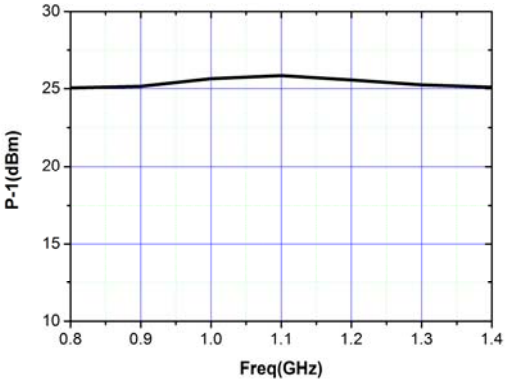
Gain



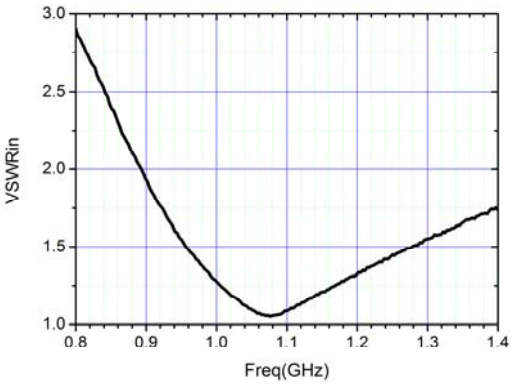
Noise Figure



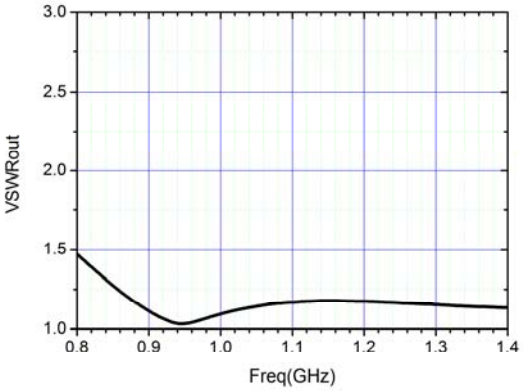
Output Power for 1dB Compression



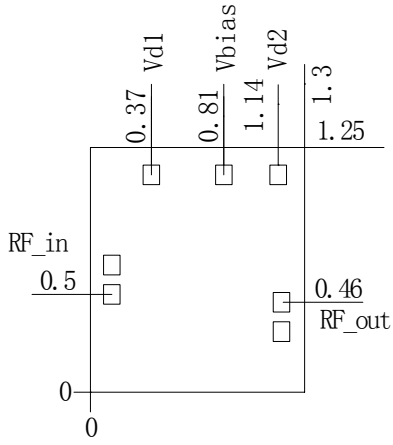
Input VSWR



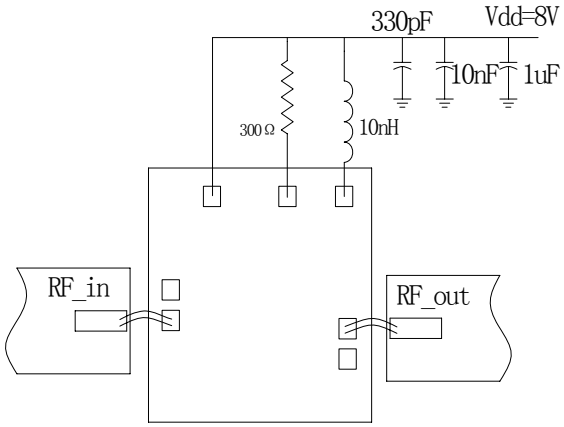
Output VSWR



Outline Drawing (mm)



Assembly Diagram



Absolute Maximum Ratings

Supply Voltage	+9V
RF Input Power	+18dBm
Operating Temperature	-55℃～125℃
Storage Temperature	-65℃～150℃

Notes:

1. The chip should be stored in a dry and nitrogen environment, and used in a clean environment.
2. GaAs material is brittle, can not touch the surface of the chip, must be careful when using.
3. The chip is welding with conductive adhesive or alloy (alloy temperature should not exceed 300℃, and no more than 30 sec.), and should make it fully grounded.
4. The chip microwave port and substrate gap is not exceeding 0.05mm, with Φ25μm double gold wire bonding, suggested length of gold wire 250～400μm.
5. Chip microwave port with a DC blocking capacitor.
6. The chip is sensitive to static electricity, and should be protected against static electricity during storage and use.