Features

Freq: 8～11GHz

Gain: 24dB

Output Power:42dBm

PAE:36%

Supply Voltage: +8V

Supply Current: 3.3A

Chip Size:4.38mm×4.1mm×0.1mm

General Description

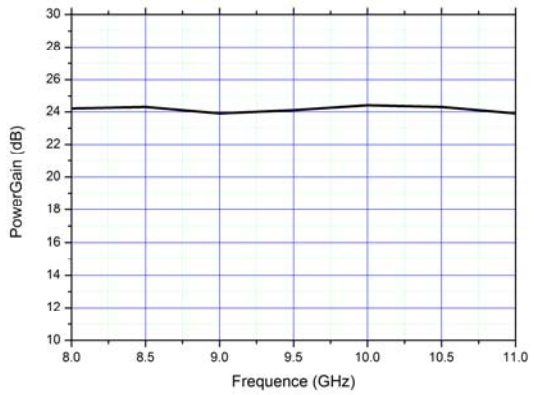
The HG135FA is a GaAs pHEMT MMIC Power Amplifier operating between 8 and 11GHz. The amplifier has been optimized to provide 24dB gain, 42 dBm of saturated power ,and 36% PAE.

Electrical Specifications(T_A=25℃,Vdd =+ 8V, Idd = 3.3A)

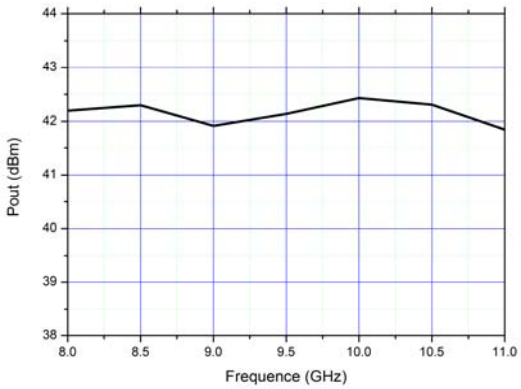
Parameter	Min.	Typ.	Max.
Freq(GHz)		8～11	
Gain (dB)	—	24	—
Input Return Loss (dB)	—	9.5	—
Output Return Loss (dB)	—	9.5	—
Saturation Power (dBm)	—	42	—
PAE	—	36%	—
Second harmonic restraint	40	—	—

Measured Performance

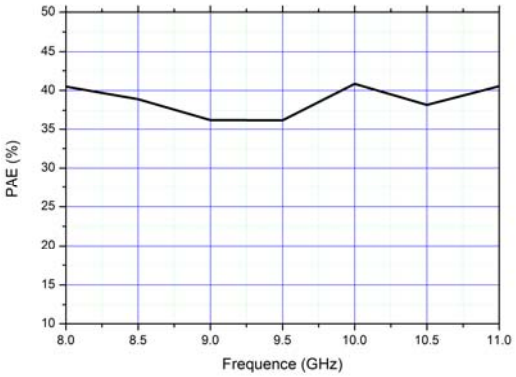
Gain



Saturation Power (dBm)



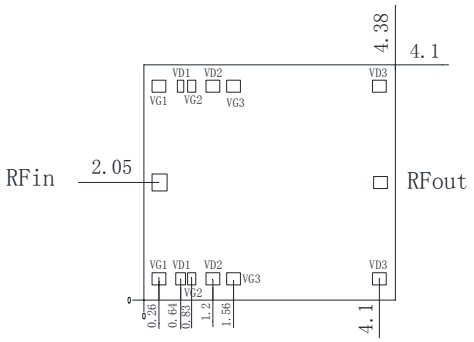
PAE



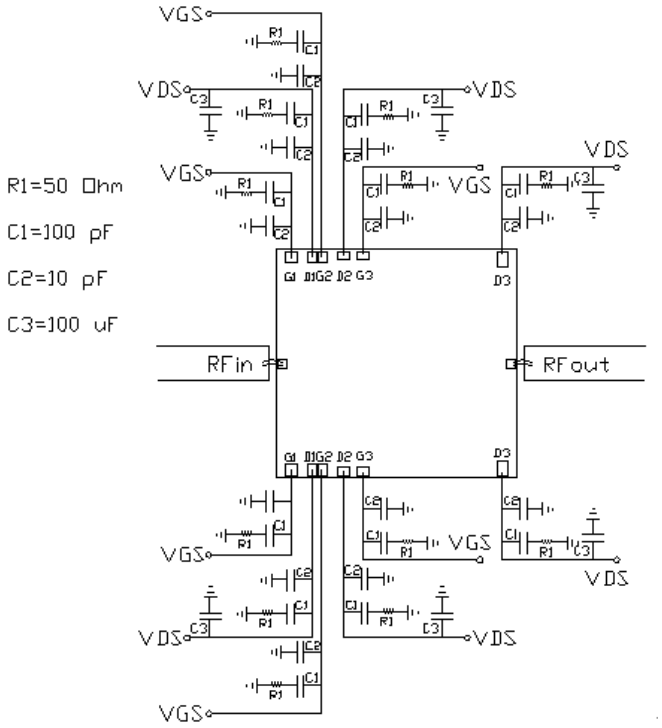
Absolute Maximum Ratings

Supply Voltage	+10V
RF Input Power	+28dBm
Operating Temperature	-55℃～85℃
Storage Temperature	-65℃～150℃

Outline Drawing (mm)



Assembly Diagram



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 50μm double gold ribbon 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.