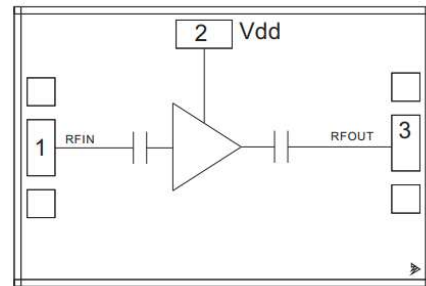


Performance

- Frequency: 2-6GHz
- Noise Figure: 3.4dB
- Gain: 26dB
- Gain Flatness: ± 0.8 dB
- Output P1dB: 21dBm
- Psat: 22dBm
- Output IP3: 28dBm
- Single supply operating: +5V@105mA
- Chip size: 1.5*1.0*0.07mm

Function Diagram

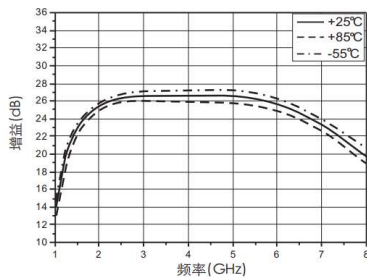


Electrical Specifications (Ta=+25°C, 50Ω system, Vdd=+5V, Idd=105mA)

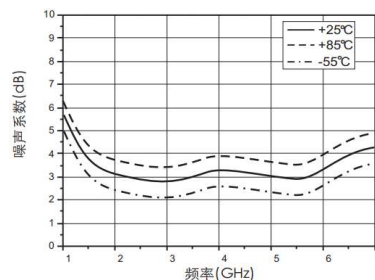
Parameter	Min	Typical	Max	Unit
Frequency Range		2-6		GHz
Gain	-	26	-	dB
Gain Flatness		± 0.8		dB
Noise Figure	-	3.4	-	dB
Input Return Loss	-	10	-	dB
Output Return Loss	-	12	-	dB
P1dB	-	21	-	dBm
Psat	-	22	-	dBm
OIP3	-	28	-	dBm
Idd	-	105	-	mA

Test Curves

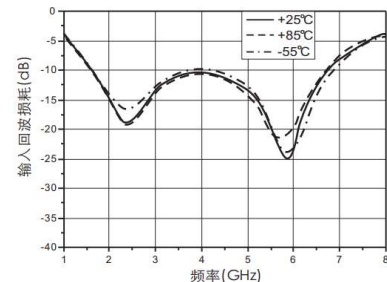
Gain vs. Freq vs. Temp



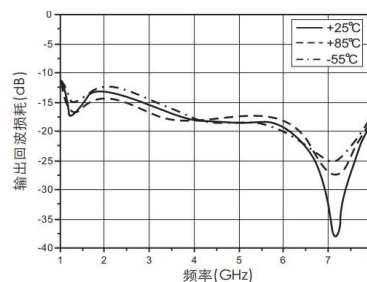
Noise Figure vs. Freq vs. Temp



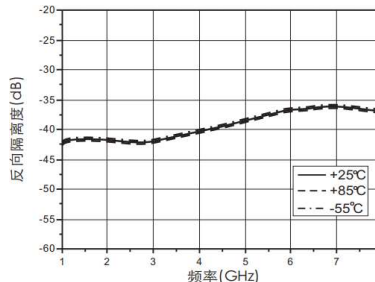
IRL vs. Freq vs. Temp



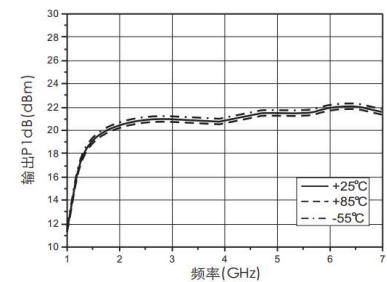
ORL vs. Freq vs. Temp



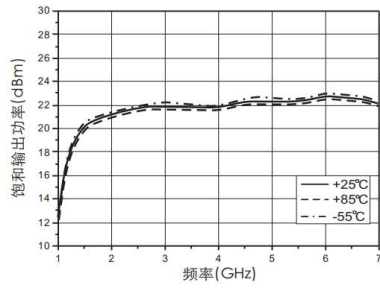
Reverse isolation vs. Freq vs. Temp



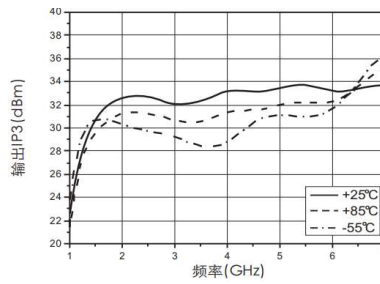
P1dB vs. Freq vs. Temp



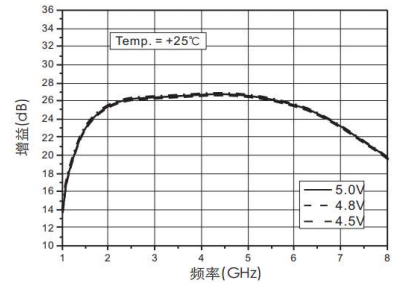
Psat vs. Freq vs. Temp



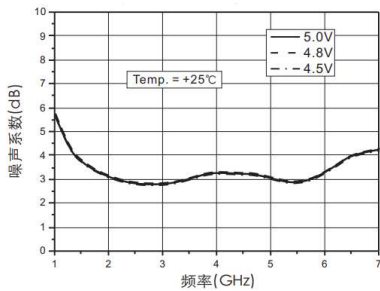
IP3 vs. Freq vs. Temp



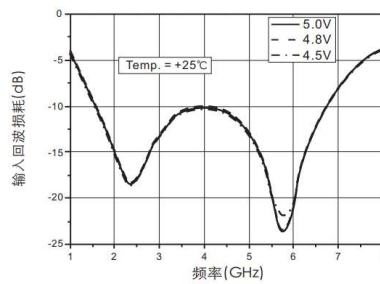
Gain vs. Freq vs. Vdd



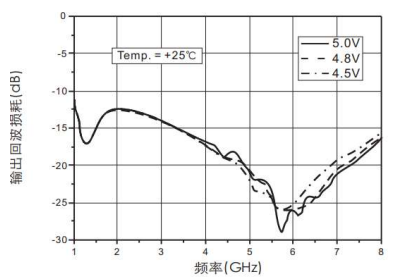
N.F vs. Freq vs. Vdd



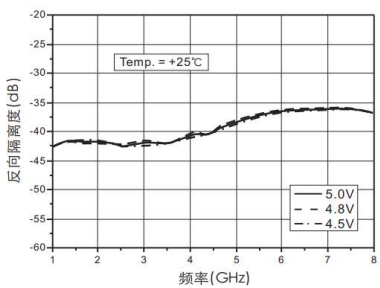
IRL vs. Freq vs. Vdd



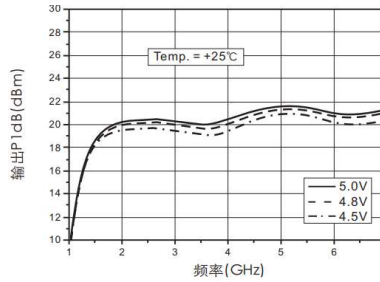
ORL vs. Freq vs. Vdd



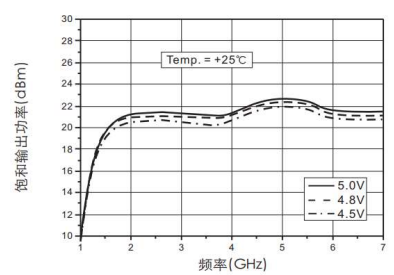
Reverse Isolation vs Freq



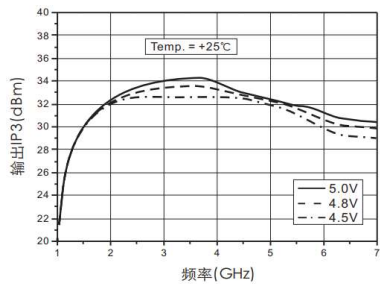
P1dB vs. Freq vs. Vdd



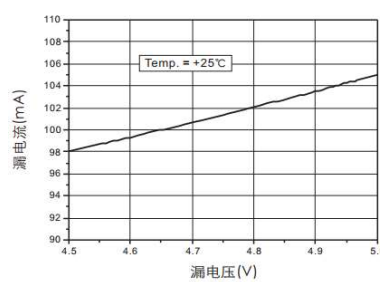
Psat vs. Freq vs. Vdd



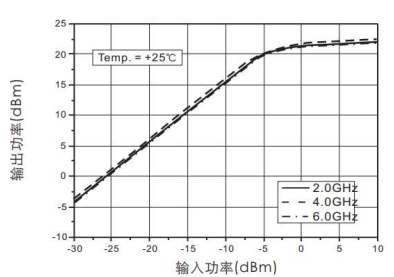
IP3 vs. Freq vs. Vdd



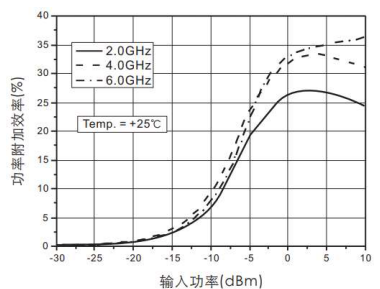
Leakage current vs. Vdd



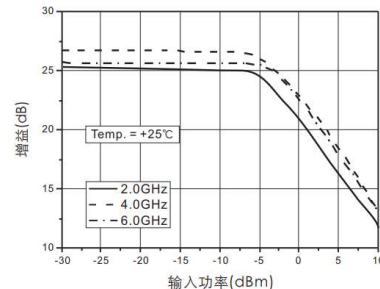
Output Power vs Input Power vs Freq



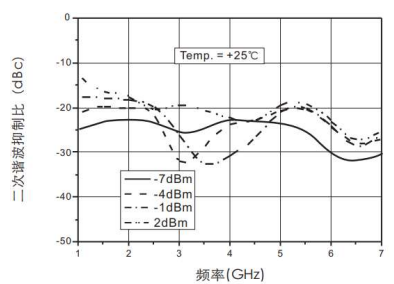
PAE vs. Input power vs. Freq

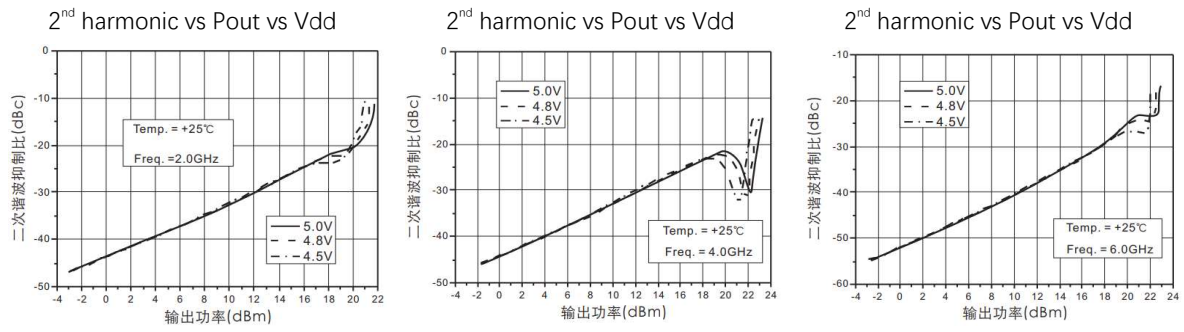


Gain vs. Input power vs. Freq

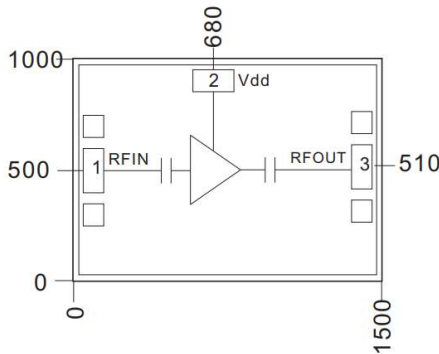


2nd harmonic vs. Freq vs. Input power





Outline Size



Note:

1. Unit: um
2. Bottom side is gold plated
3. Bottom side is GND
4. Bonding pads is gold plated, size: 1,2,3: 200*100(um)
5. Don't bonding on thru holes
6. Tolerance: ±50um

Bonding Pads Definition

Number	Symbol	Description	Equivalent Circuits
1	RF in	RF input, 50ohm, no block capacitor needed	
2	Vdd	Drain bias, 100pF Bypass capacitor needed	
3-	RF out	RF output, 50ohm, no block capacitor needed	
Bottom	GND	Bottom should be GND	

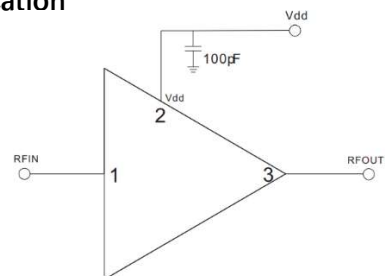
Absolute Max Ratings

Max Input Power	+10dBm
Vdd	+6V
Thermal Resistance	92°C/W
Channel Temperature	175°C
Junction Temperature	320°C (20 sec, N2 protection)
Storage Temperature	-55 ~ +150°C
Operating Temperature	-55 ~ +125°C

Exceed listed ratings may cause permanent damage



Application



Assembly

