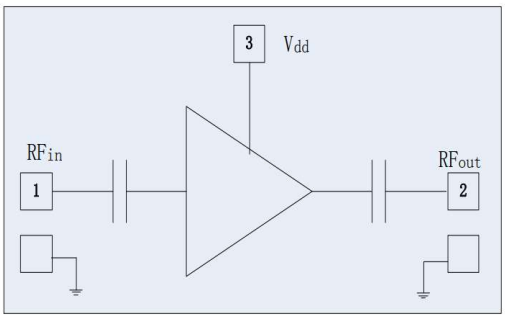
Performance

- Frequency: 2~20GHz
- Noise Figure: 2.5dB
- Typical Gain: 18dB
- Typical P-1: 16.5dBm
- VSWR in/out: 1.3/1.5
- Supply: +5V
- Technology: 0.15um Low Noise PHEMT
- Size: 3.04*1.54mm*0.1mm

Function Diagram



Electrical Specifications (V_d=5V, F: 2~20GHz)

Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain		18		dB
NF	Noise Figure		2.5		dB
VSWRin	Input VSWR		1.3		-
VSWRout	Output VSWR		1.5		-
P-1	Pout at 1dB compression		16.5		dBm
Id	Drain Current		70		mA

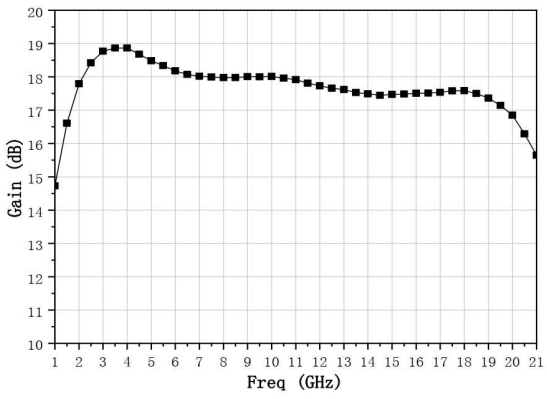
Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	7V	
Pin	Input Power	17dBm	
Tch	Channel Temperature	150℃	
Tm	Mounting Temperature	290℃	30sec, N_2 protection
Tstg	Storage Temperature	-55~150℃	

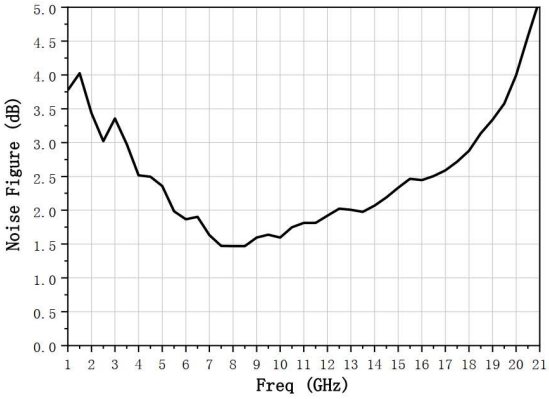
Exceeding any one or combination of these limits may cause permanent damage.

Test Curves

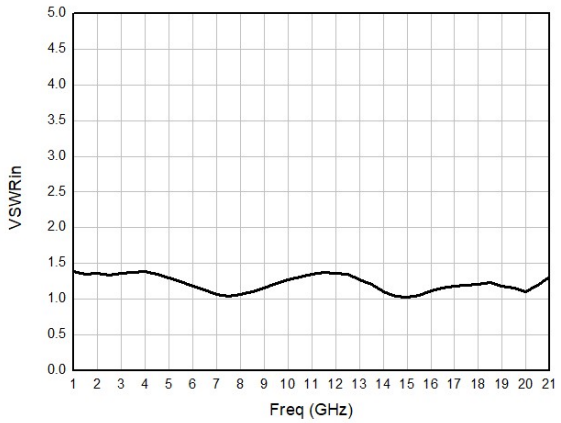
Small Signal Gain vs. Freq



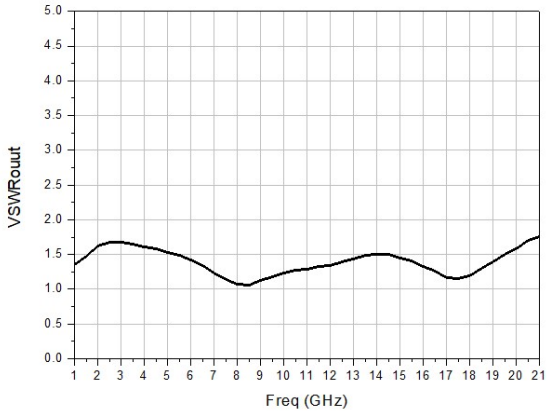
Noise Figure vs. Freq



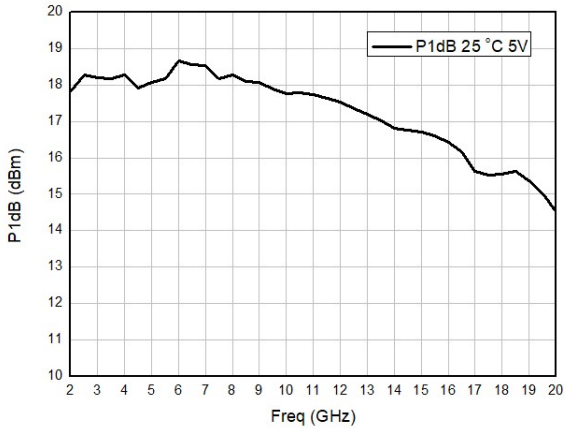
Input VSWR vs. Freq

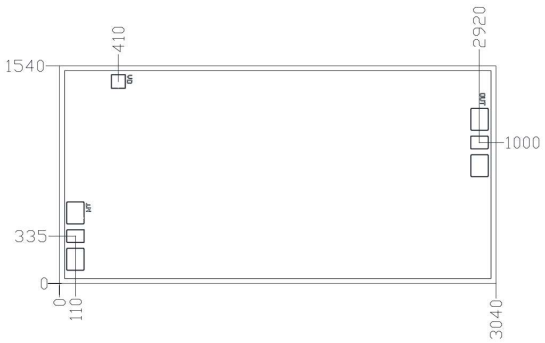
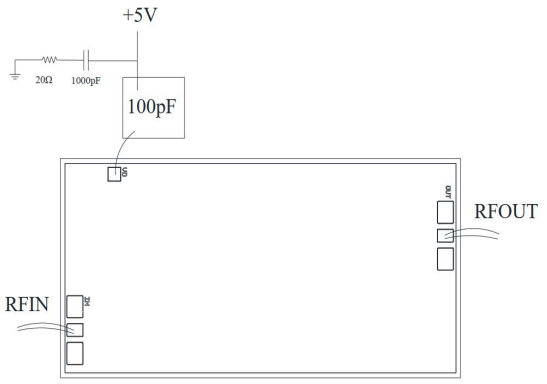


Output VSWR vs. Freq



P-1dB vs. Freq



Outline Size (mm)	Assembly Diagram
	

Pin Definition

Number	Description
RFin	RF input port, connect to 50 ohm system, no block capacitor needed
RFout	RF output port, connect to 50 ohm system, no block capacitor needed
Vdd	Amplifier drain bias, connect to external 100pF capacitor
GND	Bottom must be well connected with RF and DC ground