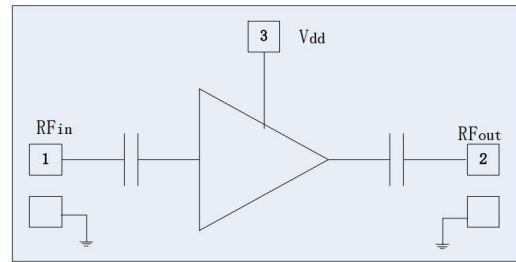


Performance

- 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
VSWR _{in}	Input VSWR		1.3		-
VSWR _{out}	Output VSWR		1.5		-
P _{1dB}	P _{out} at 1dB compression		16.5		dBm
I _d	Drain Current		70		mA

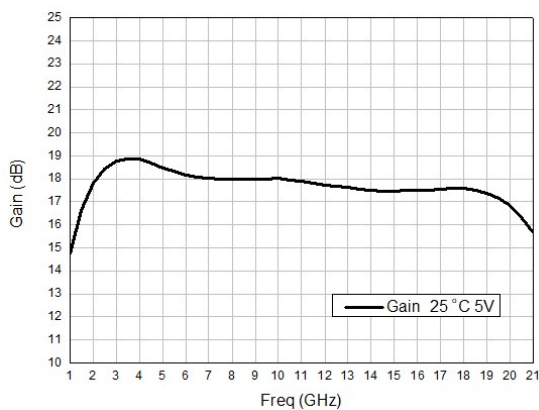
Absolute Max Ratings (T_A=25°C)

Symbol	Parameter	Value	Remark
V _d	Drain Voltage	7V	
P _{in}	Input Power	17dBm	
T _{ch}	Channel Temperature	150°C	
T _m	Mounting Temperature	290°C	30sec, N ₂ protection
T _{stg}	Storage Temperature	-55~150°C	

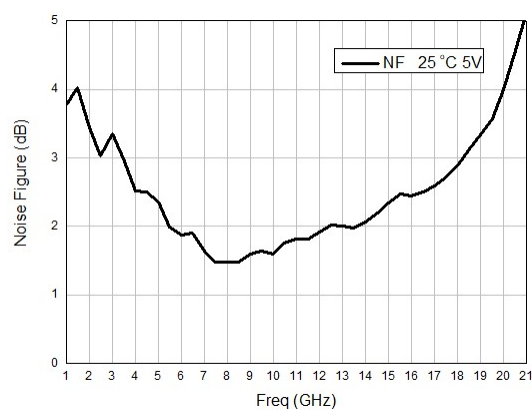
Exceeding any one or combination of these limits may cause permanent damage.

Test Curves

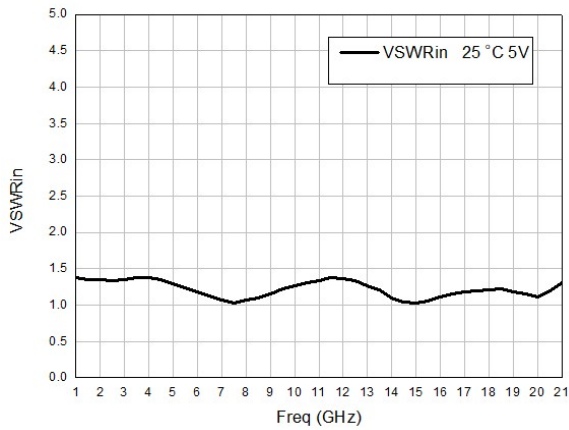
Small Signal Gain vs. Freq



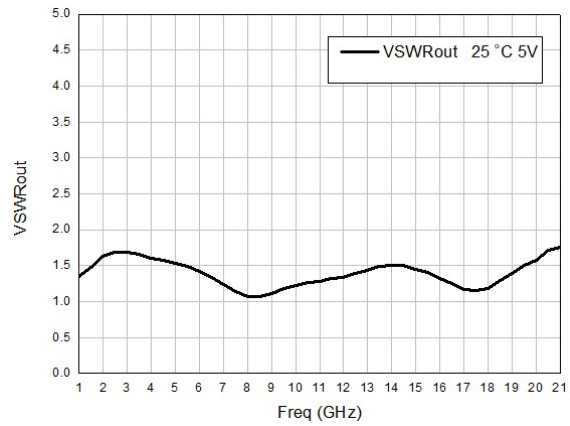
Noise Figure vs. Freq



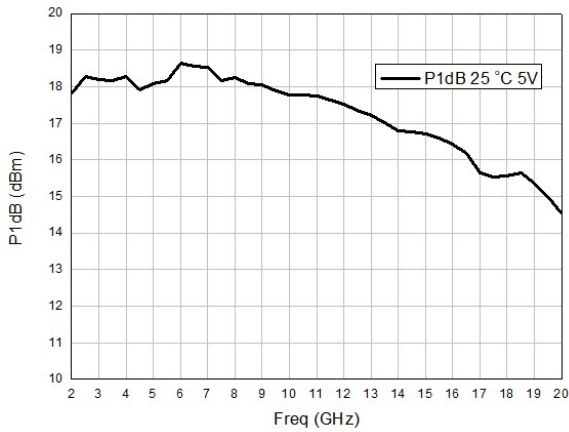
Input VSWR vs. Freq

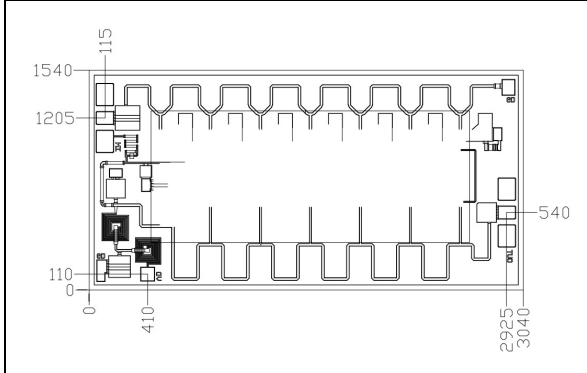
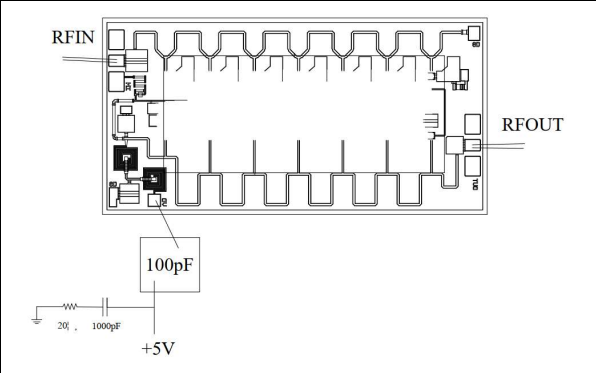


Output VSWR vs. Freq



P1dB 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