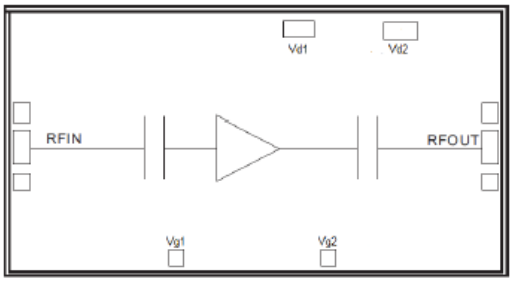
Features

- **Frequency: 0.5-2.5GHz**
- **Small Signal Gain: 29dB**
- **Gain Flatness: ±1.25dB**
- **P1dB: 27.5dBm**
- **Psat: 28dBm**
- **Power Supply: 8V@155mA**
- **Input/Output: 50Ω**
- **Die Size: 2.02 x 1.57 x 0.1 mm**

Functional Block Diagram



Typical Applications

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

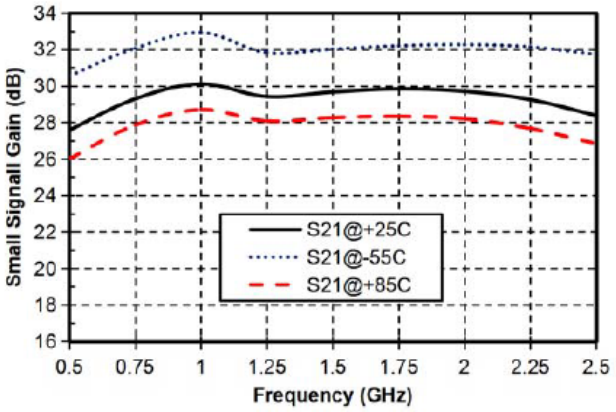
Electrical Specifications

TA = +25ºC, Vd = +8V, Ids=155mA

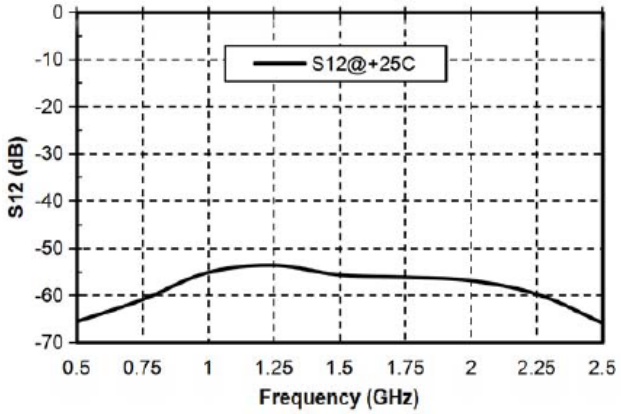
Parameters	Min.	Typ.	Max.	Units
Frequency		**0.5-2.5**		**GHz**
Small Signal Gain		**29**		**dB**
Gain Flatness		**±1.25**		**dB**
P1dB		**27.5**		**dBm**
Psat		**28**		**dBm**
Input Return Loss		**18**		**dB**
Output Return Loss		**9**		**dB**
Quiescent Current		**155**		**mA**

*Adjust Vg during -2V~0V, recommended Vg is around -0.65V.

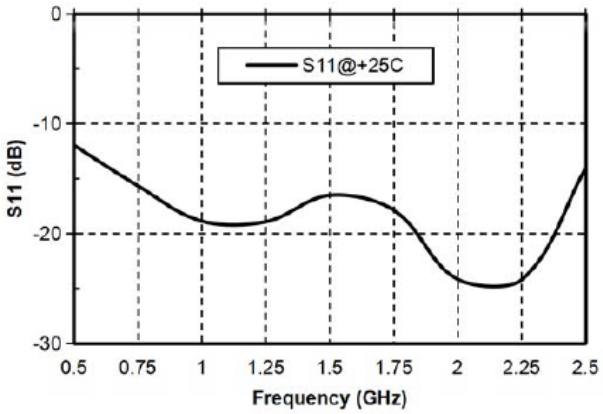
Gain vs. Frequency



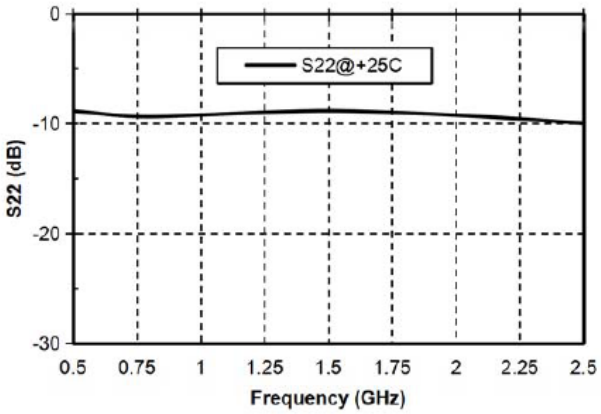
Reverse Isolation vs. Frequency



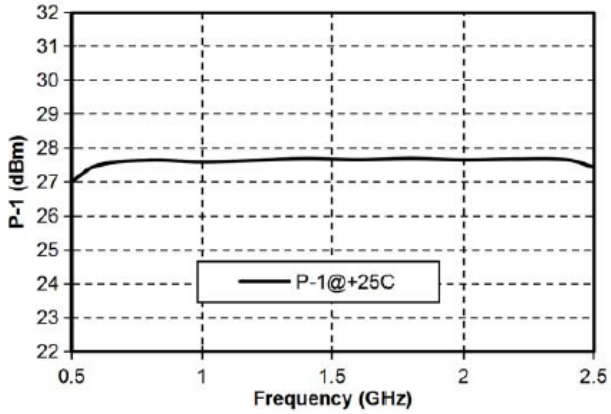
Input Return Loss vs. Frequency



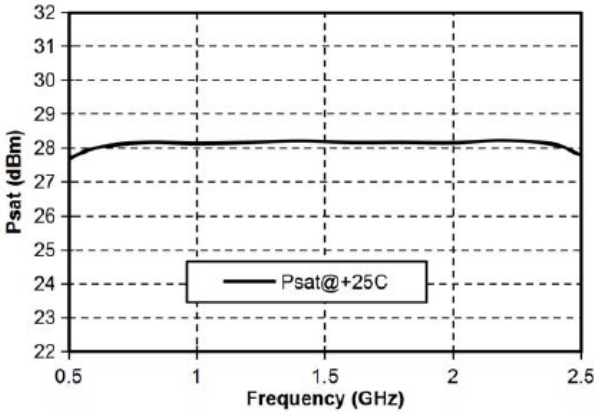
Output Return Loss vs. Frequency



P-1dB vs. Frequency

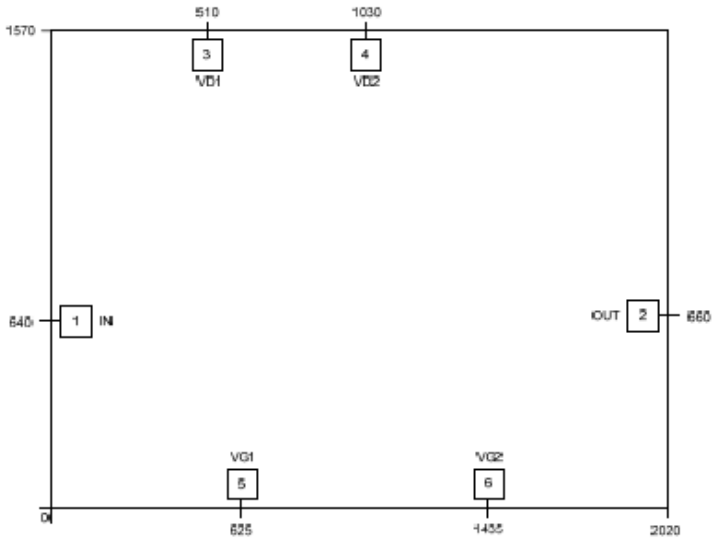


Psat vs. Frequency



Outline Drawing:

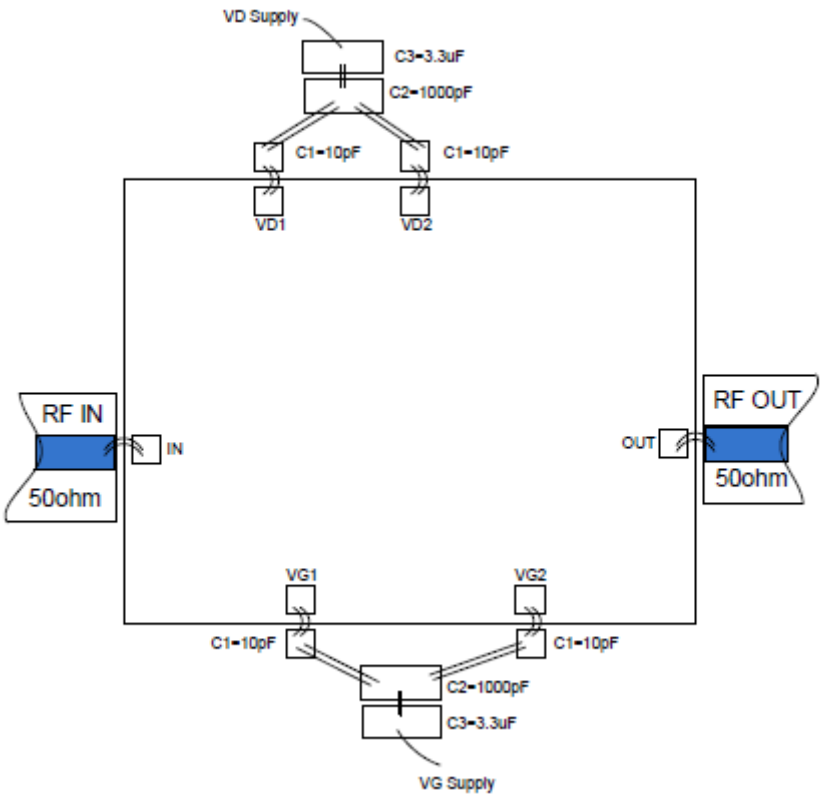
All Dimensions in um



Pad Description

PAD	Function	Description
1	RF IN	RF signal input terminal, no blocking capacitor required
2	RF OUT	RF signal output terminal, no blocking capacitor required
3,4	Vd1, Vd2	Amplifier drain bias, connected to external 10pF, 1000pF and 3.3uF bypass capacitor.
5,6	Vg1, Vg2	Amplifier gate bias, connected to external 10pF, 1000pF and 3.3uF bypass capacitor.
Die Bottom	GND	Die bottom must be connected to RF/DC ground

Assembly Drawing



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm²
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. **Maximum drain voltage: +10V**
2. **Maximum input power: +25dBm**
3. **Operating temperature: -55℃ to +85℃**
4. **Storage temperature: -65℃ to +150℃**