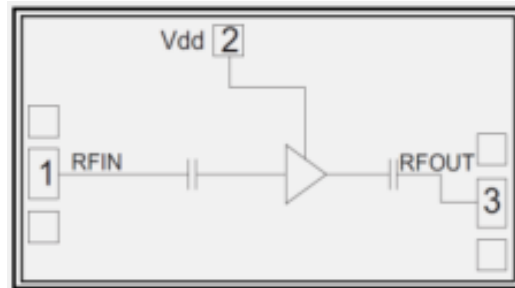


**Features**

- Frequency: 4-6GHz
- Small Signal Gain: 29.5dB
- Noise Figure: 0.7dB max.
- P1dB: 11dBm
- Power supply: +5V/30mA
- Input/Output: 50Ω
- Die Size: 1.55 x 1.25 x 0.09 mm

**Functional Block Diagram**

**Typical Applications**

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

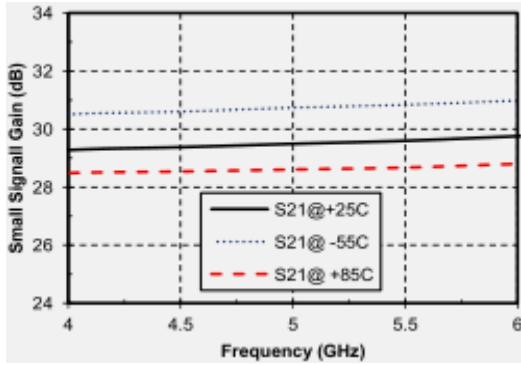
**Electrical Specifications**

TA = +25°C, Vd = +5V

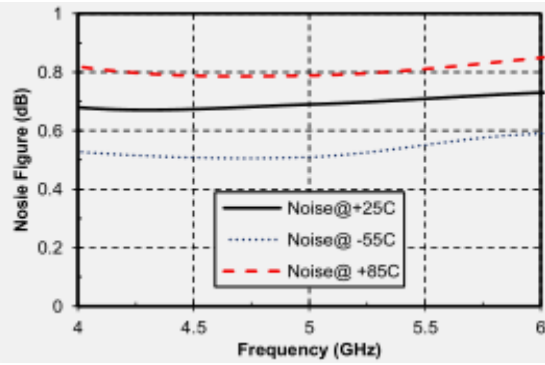
Parameters	Min.	Typ.	Max.	Units
Frequency	4-6			GHz
Small Signal Gain	-	29.5	-	dB
Gain Flatness		-		dB
Noise Figure	-	-	0.7	dB
Output 1dB Compression (P1dB)	-	11	-	dBm
Saturated Output Power (Psat)	-	12	-	dBm
Input Return Loss	-	20	-	dB
Output Return Loss	-	14	-	dB
Static current		30		mA



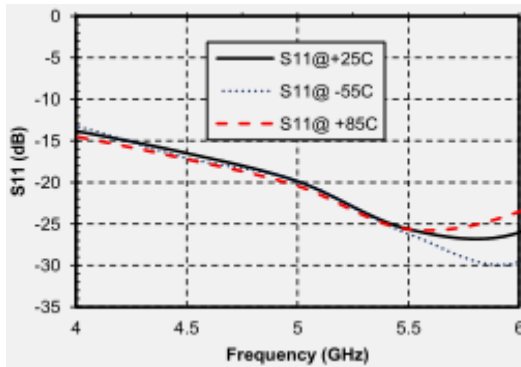
### Gain vs. Frequency



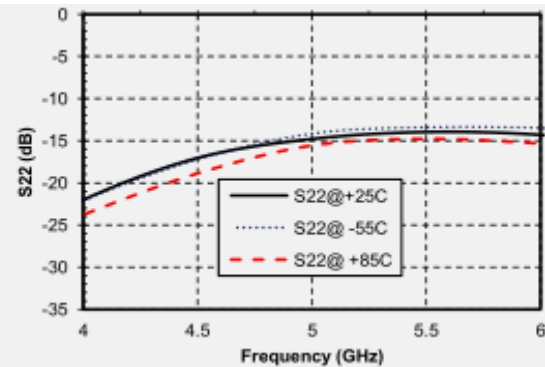
### Noise Figure vs. Frequency



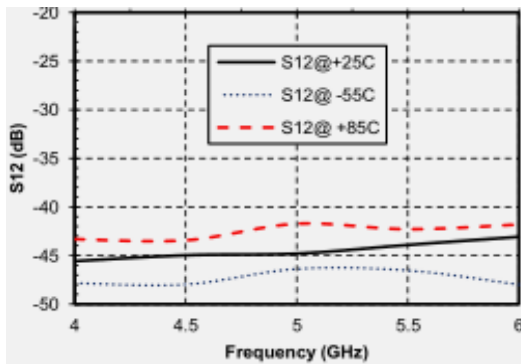
### Input Return Loss vs. Frequency



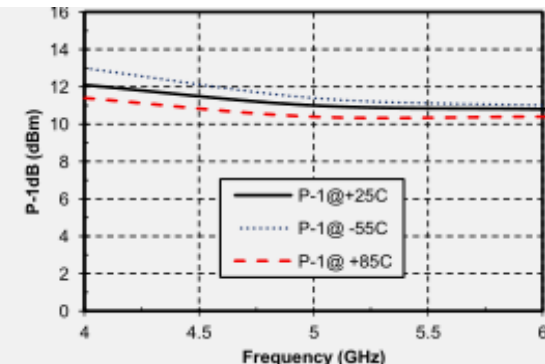
### Output Return Loss vs. Frequency



### Reverse Isolation vs. Frequency

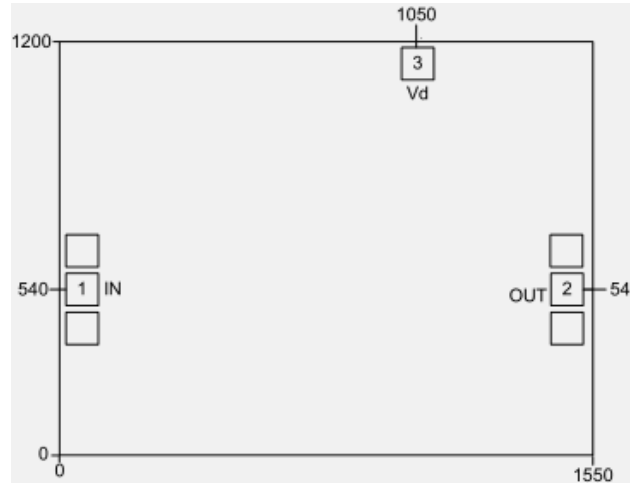


### P1dB vs. Frequency





**Outline Drawing:**  
All Dimensions in  $\mu\text{m}$

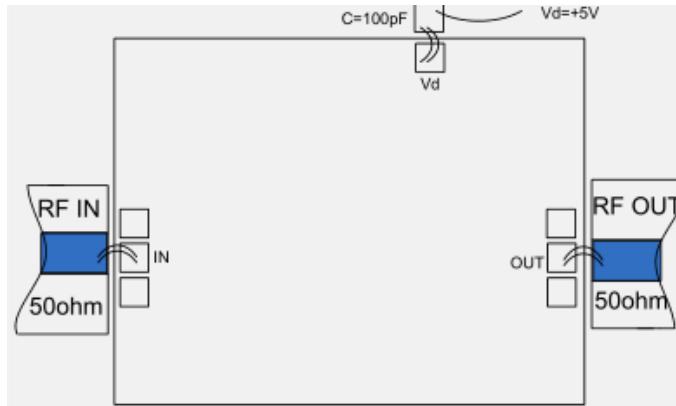


**Pad Description**

Pad	Function	Description	Equivalent Circuit
1	RF IN	RF signal input terminal, no blocking capacitor required.	
2	RF OUT	RF signal output terminal, no blocking capacitor required.	
3	VDD	Amplifier drain bias; external 100pF bypass capacitor required.	
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  $\mu\text{m}^2$
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: +7V
2. Maximum input power: +20dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C