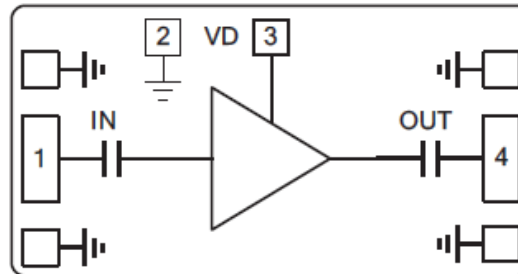


**Features**

- Single Biasing Voltage (Self Biased)
- Noise Figure: 2.5dB
- Gain :25dB
- P1dB: +17dBm
- Biasing +4V @ 115 mA
- Impedance: 50Ω
- Die Size: 2.0 x 1.3 x 0.1 mm

**Functional Block Diagram**

**Typical Applications**

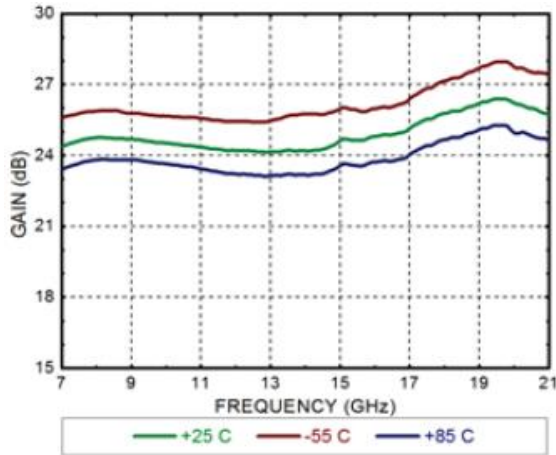
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

**Electrical Specifications**
**TA = +25°C, Vdd = +4V Idd = 115mA**

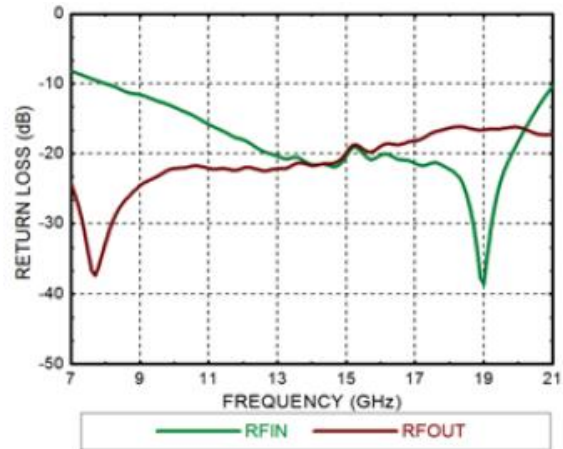
Parameters	Min.	Typ.	Max.	Units
<b>Frequency</b>		<b>7 - 21</b>		<b>GHz</b>
<b>Gain</b>		<b>25</b>		<b>dB</b>
<b>Gain Flatness</b>		<b>±1</b>		<b>dB</b>
<b>Input Return Loss</b>		<b>10</b>		<b>dB</b>
<b>Output Return Loss</b>		<b>15</b>		<b>dB</b>
<b>Output 1dB Compression (P1dB)</b>		<b>17</b>		<b>dBm</b>
<b>Saturated Output Power (Psat)</b>		<b>20</b>		<b>dBm</b>
<b>Output Third Order Intercept (IP3)</b>		<b>26</b>		<b>dBm</b>
<b>Noise Figure</b>		<b>2.5</b>		<b>dB</b>
<b>Current</b>	<b>70</b>	<b>115</b>	<b>135</b>	<b>mA</b>



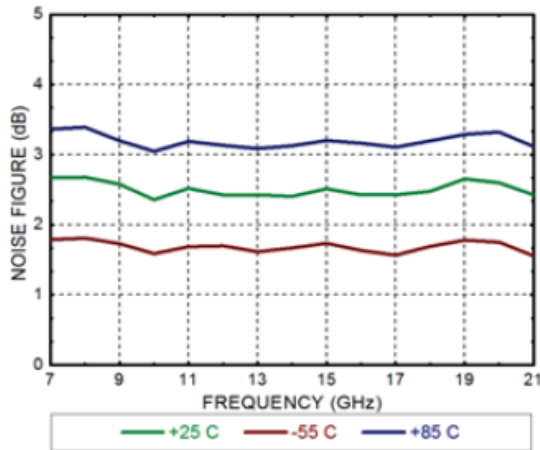
### Gain



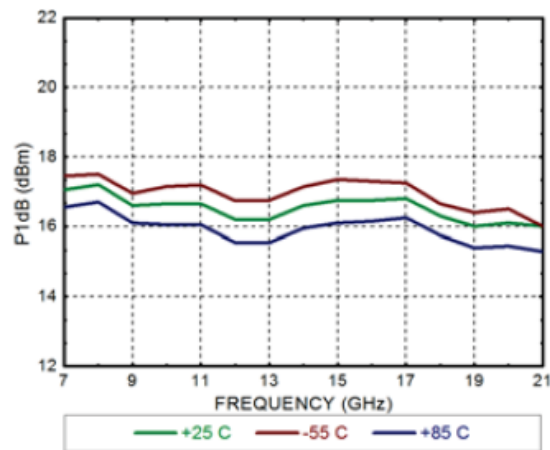
### Return Loss



### Noise Figure



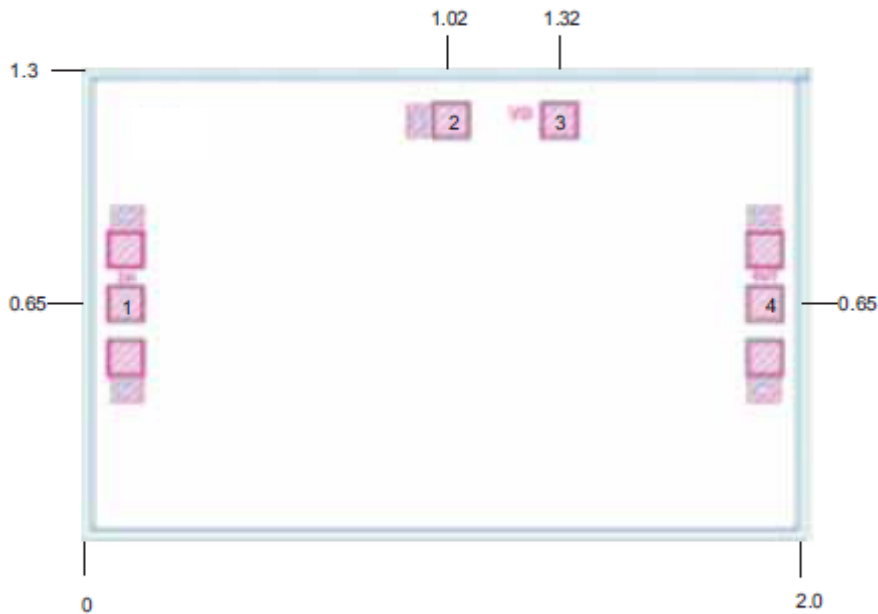
### Output Power $P_{1}$





### Outline Drawing:

All Dimensions in mm

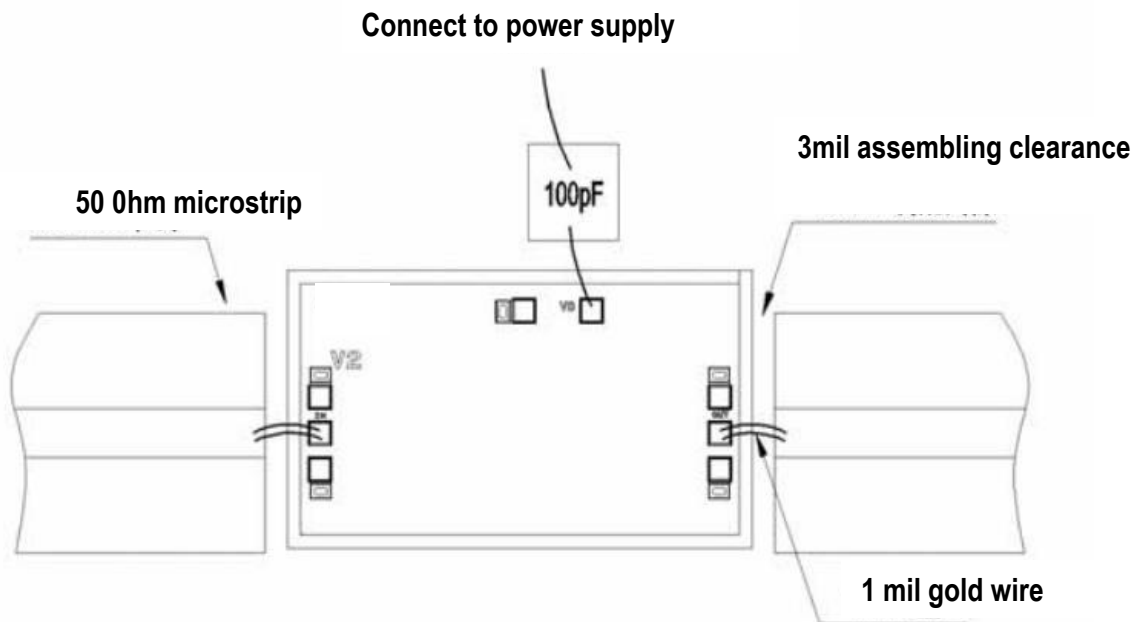


### Pad Description

PAD	Function	Description
1	IN	Input AC coupling 50Ω Impedance
3	VD	The pad provides the power supply voltage of the amplifier and needs to be externally connected with the 100pF bypass capacitor.
4	OUT	Output AC coupling 50Ω Impedance
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. Power supply voltage: +5V
2. RF input power: +18dBm
3. Storage temperature: -65°C to +175°C
4. Operating temperature: -55°C to +85°C