

**Features**

- Single Biasing Voltage (Self Biased)
- Frequency: 2-26GHz
- Gain: 20.5dB
- Noise Figure: 2.7~4.3dB
- Input /Output Return Loss:>12dB/>11dB
- P1dB: 10~12.7dBm
- IP3: 22dBm
- Power Supply: +5 V@91 mA
- Die Size: 3.12 x 1.38 x 0.1 mm

**Typical Applications**

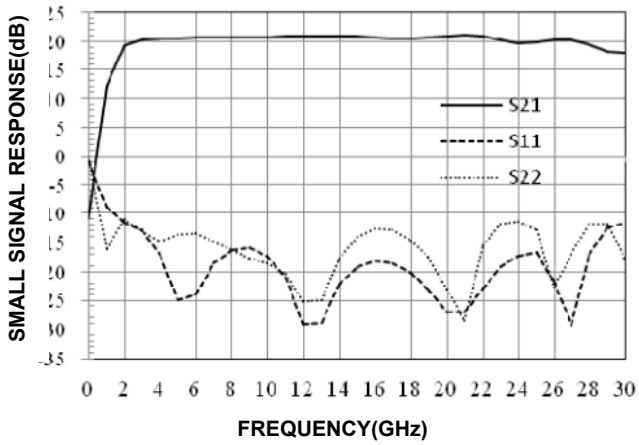
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics


**Electrical Specifications**
**TA = +25°C, Vd = +5V**

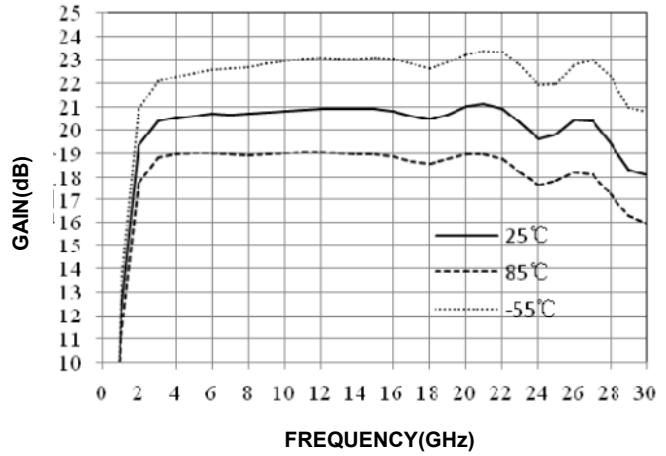
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
<b>Frequency</b>	<b>2-5</b>			<b>5-20</b>			<b>20-26</b>			<b>GHz</b>
<b>Gain</b>	<b>19.6</b>	<b>20.0</b>	<b>21.0</b>	<b>20.0</b>	<b>20.5</b>	<b>21.0</b>	<b>20</b>	<b>20.5</b>	<b>21</b>	<b>dB</b>
<b>Noise Figure</b>	<b>3.3</b>	<b>3.7</b>	<b>4.5</b>	<b>2.7</b>	<b>3.0</b>	<b>3.5</b>	<b>3.5</b>	<b>4</b>	<b>4.5</b>	<b>dB</b>
<b>P1dB</b>	<b>12.0</b>	<b>12.5</b>	<b>13.0</b>	<b>11.0</b>	<b>11.5</b>	<b>12.0</b>	<b>10.0</b>	<b>10.5</b>	<b>11.0</b>	<b>dBm</b>
<b>Input RL</b>		<b>10.4</b>			<b>15.0</b>			<b>20</b>		<b>dB</b>
<b>Output RL</b>		<b>10.0</b>			<b>15.6</b>			<b>12</b>		<b>dB</b>



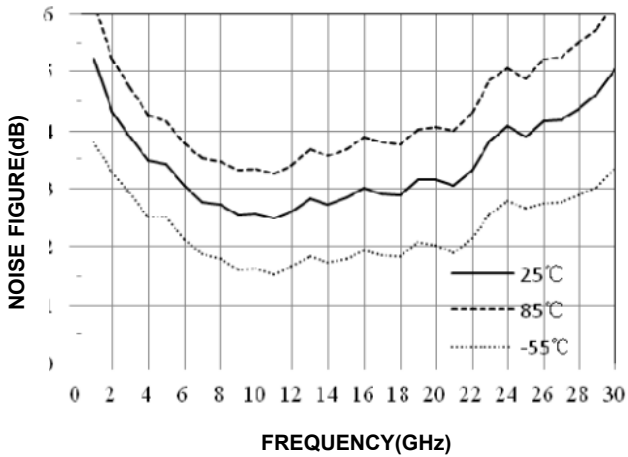
### Small Signal Response (25°C)



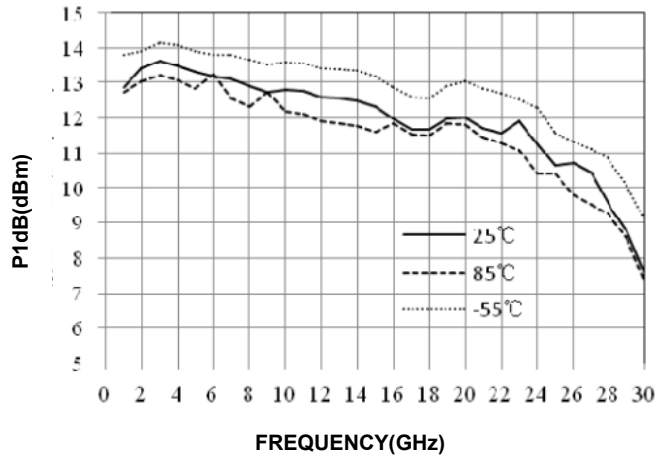
### Gain vs. Temperature



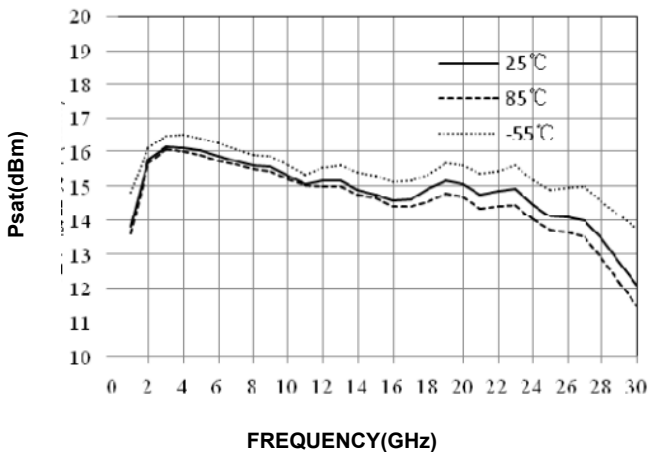
### Noise Figure vs. Temperature



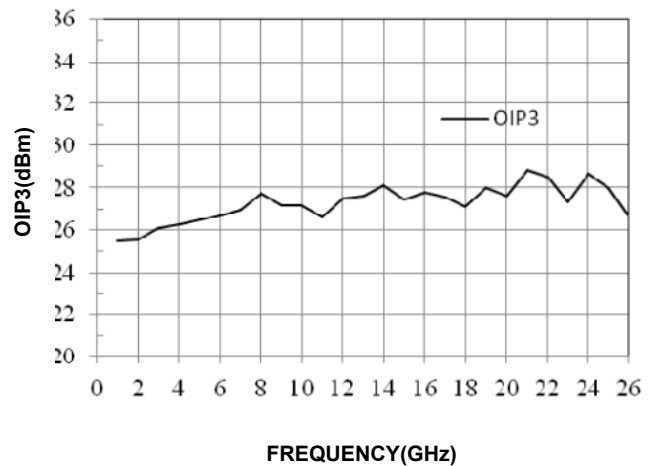
### P1dB vs. Temperature



### Psat vs. Temperature

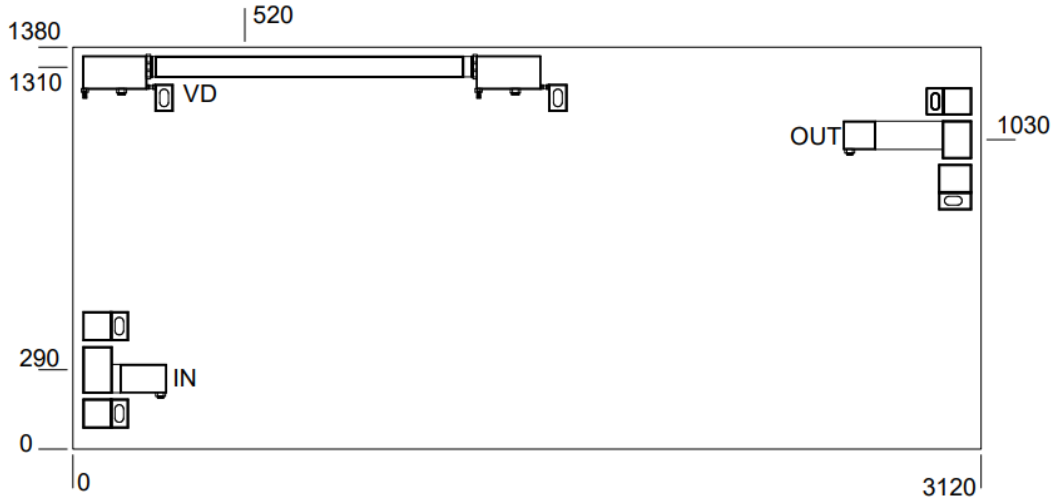


### OIP3 (25°C)

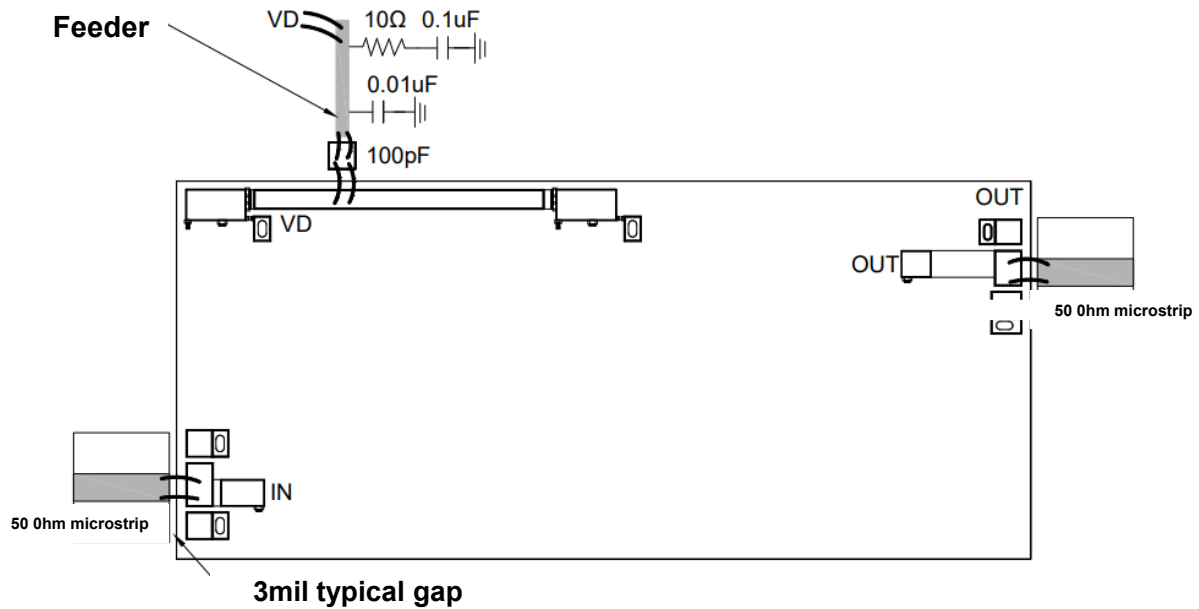




### Outline Drawing: All Dimensions in $\mu\text{m}$



### Assembly Drawing



#### Notes:

1. Die thickness: 100 $\mu\text{m}$
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
7. Internal DC Block at both input and output.
8. Input/Output use two 25 $\mu\text{m}$  gold wire, length less than 250 $\mu\text{m}$  is recommended.

#### Maximum Ratings:

1. Control voltage: +9V
2. Input power: +23dBm
3. Operating temperature: -55°C to +125°C
4. Storage temperature: -65°C to +150°C