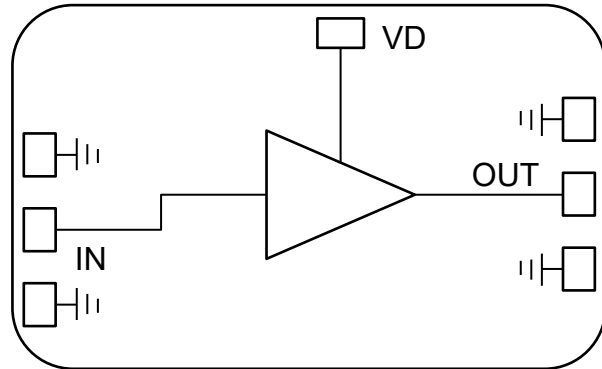


**Features**

- Frequency: DC-25GHz
- Gain: 15.25dB
- Noise Figure: 0.5~5.9dB
- Input /Output Return Loss:>19dB/>11dB
- P1dB: 11.5~15.6dBm
- IP3: 26.6dBm
- Power Supply: +8 V@60 mA
- Thermal Resistance 34° C/W
- Junction Temperature 175° C
- Die Size: 3.12 x 1.38 x 0.1 mm

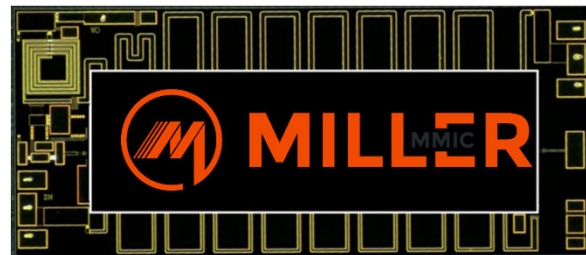


**Typical Applications**

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

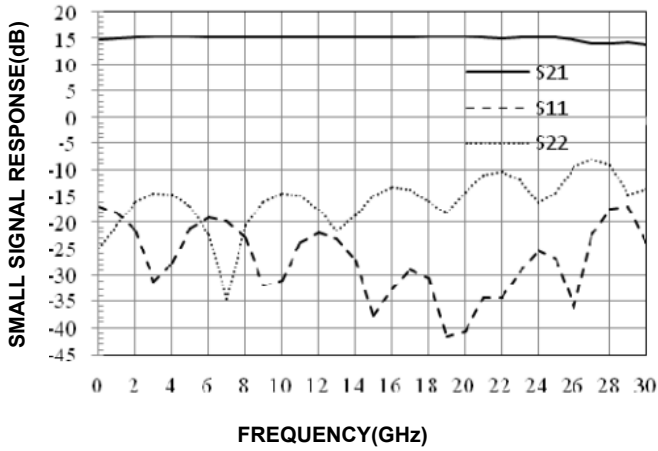
**Electrical Specifications**

TA = +25°C, Vd = +8V, Vg=-0.26V

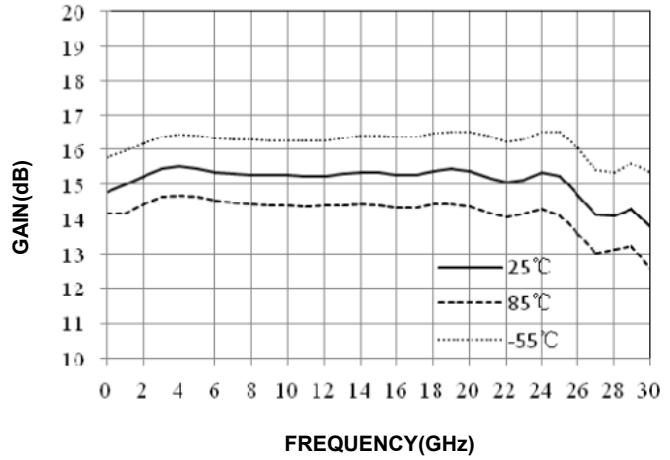


Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
<b>Frequency</b>	<b>DC-3GHz</b>			<b>3-20GHz</b>			<b>20-25GHz</b>			<b>GHz</b>
<b>Gain</b>	<b>15.5</b>	<b>16.0</b>		<b>15.1</b>	<b>15.4</b>	<b>15.7</b>	<b>14.5</b>	<b>14.7</b>	<b>15.0</b>	<b>dB</b>
<b>Noise Figure</b>		<b>3.0</b>	<b>3.5</b>	<b>0.3</b>	<b>1.5</b>	<b>2.9</b>	<b>2.7</b>	<b>3.5</b>	<b>5.9</b>	<b>dB</b>
<b>P1dB</b>	<b>11.5</b>	<b>15.1</b>	<b>15.4</b>	<b>13.5</b>	<b>14.9</b>	<b>15.6</b>	<b>11.5</b>	<b>12.9</b>	<b>13.9</b>	<b>dBm</b>
<b>Input RL</b>		<b>20.0</b>			<b>20.0</b>			<b>19</b>		<b>dB</b>
<b>Output RL</b>		<b>16.0</b>			<b>15.0</b>			<b>11.0</b>		<b>dB</b>

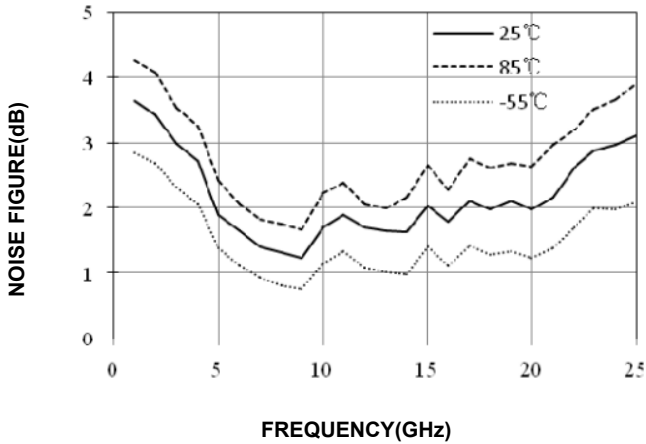
Small Signal Response (25°C)



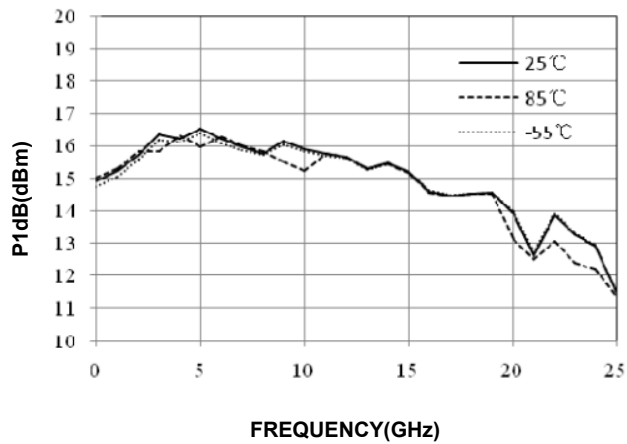
Gain vs. Temperature



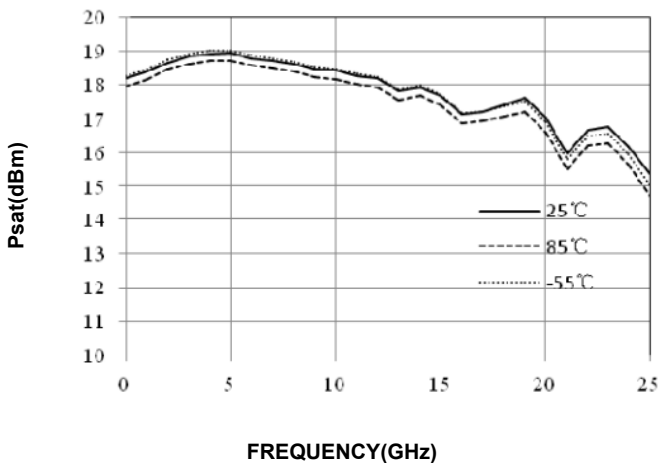
Noise Figure vs. Temperature



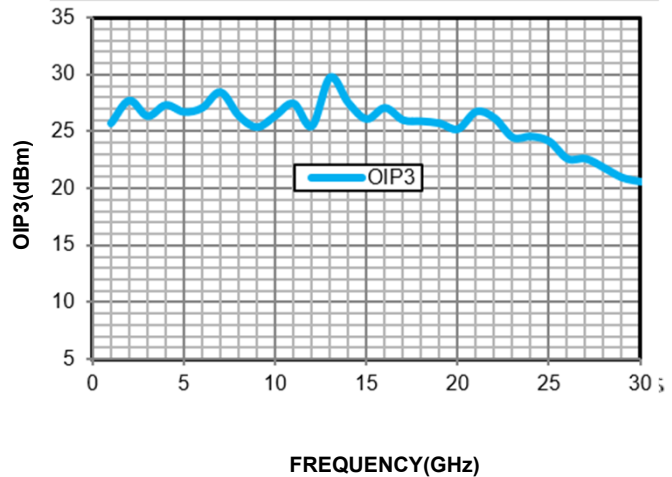
P1dB vs. Temperature



Psat vs. Temperature

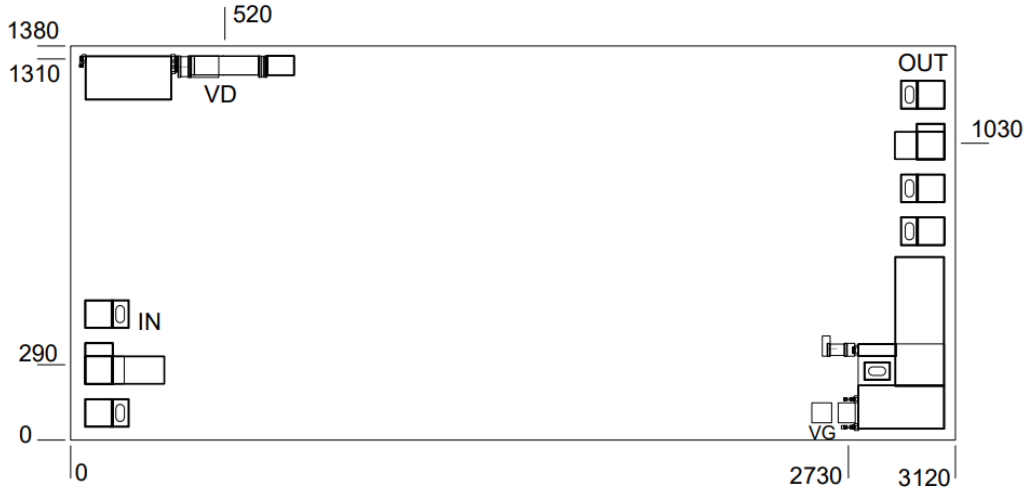


OIP3 (25°C)

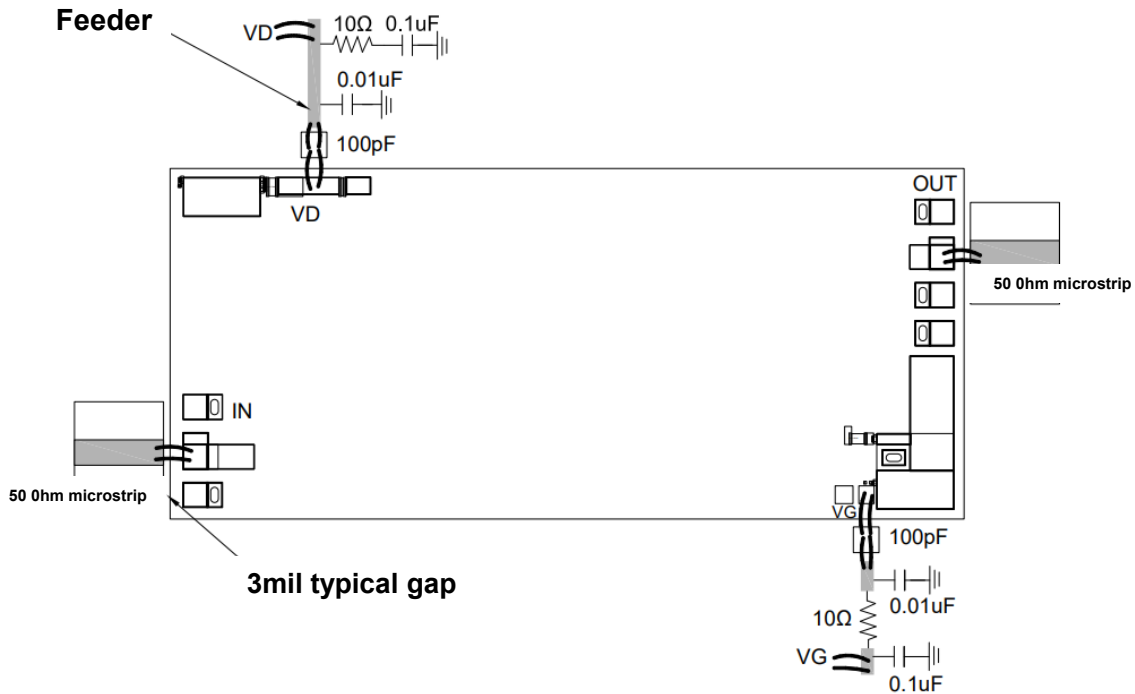




### Outline Drawing: All Dimensions in $\mu\text{m}$



### 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. No DC Block.
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