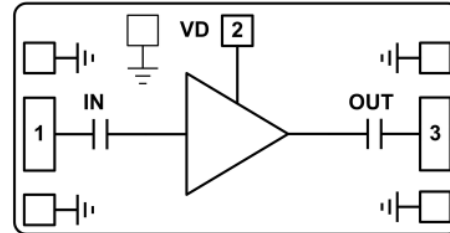


**Features**

- Single Biasing Voltage(Self Biased)
- Frequency: 2-6GHz
- Gain: 21dB
- Noise Figure: 2.0dB
- P1dB: +22.5dBm@+5V
- Psat: 24dBm@+5V
- Power Supply: Self-biased +5/+6V @190mA
- Input/Output: 50Ω
- Die Size: 1.5 × 1 × 0.1mm

**Functional Block Diagram**

**Typical Applications**

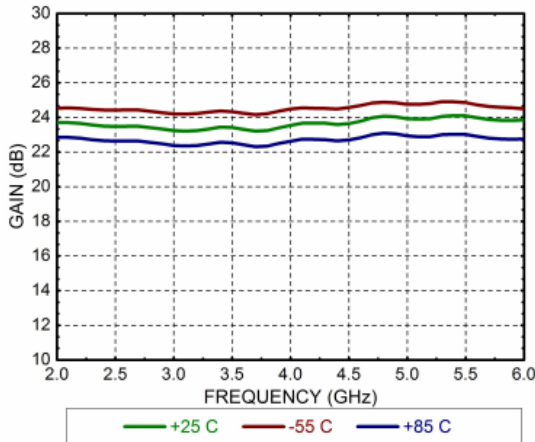
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

**Electrical Specifications**

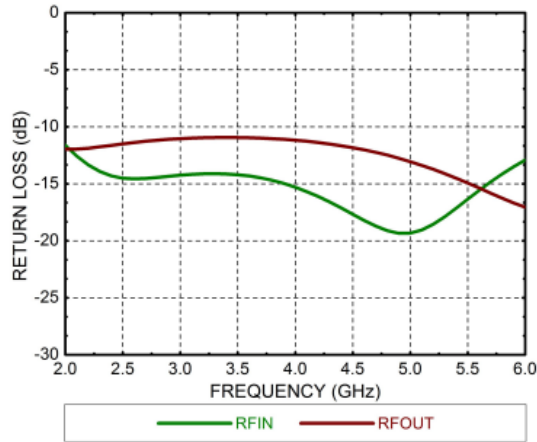
TA = +25°C, Vd = +5V/+6V, IDD = 125mA\*

Parameters	VDD=+5V			VDD=+6V			Units
	Min.	Typ.	Max.	Min.	Typ.	Max.	
Frequency	2-6			2-6			GHz
Gain		23			23		dB
Noise Figure		2.3			2.3		dB
Gain Flatness		±0.6			±0.6		dB
P1dB		22.5			24		dBm
Psat		24			25.5		dBm
OIP3		33			34		dBm
Input Return Loss		15			15		dB
Output Return Loss		12			15		dB
Operating Current	150	187	230	150	193	230	mA

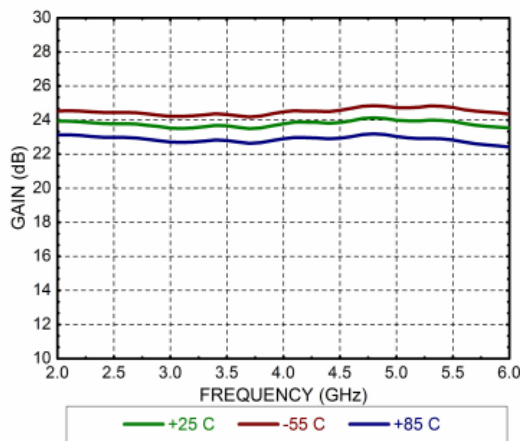
Gain VDD=+5V



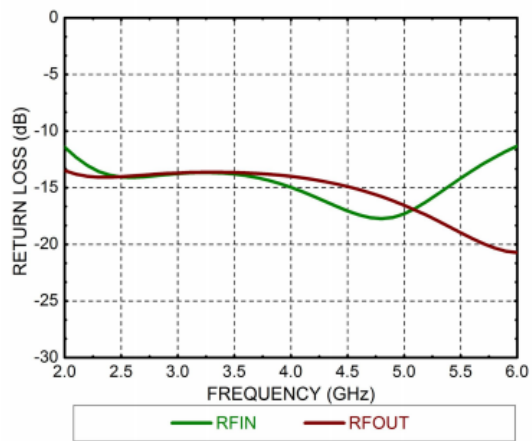
Return Loss VDD=+5V



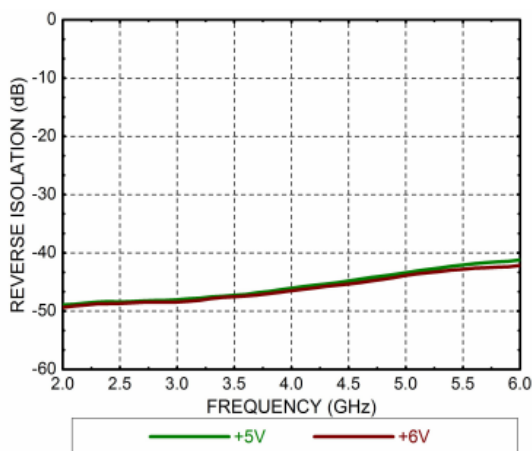
Gain VDD=+6V



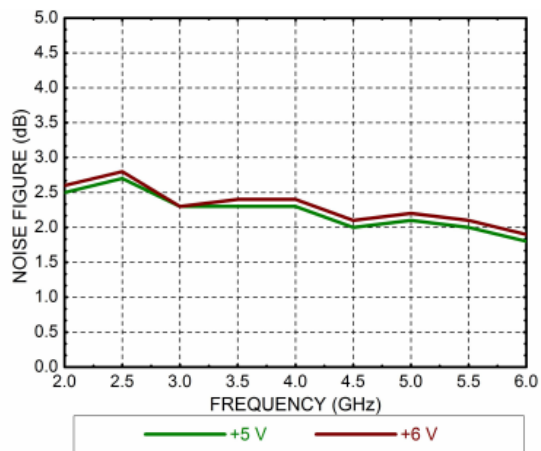
Return Loss VDD=+6V



Reverse Isolation

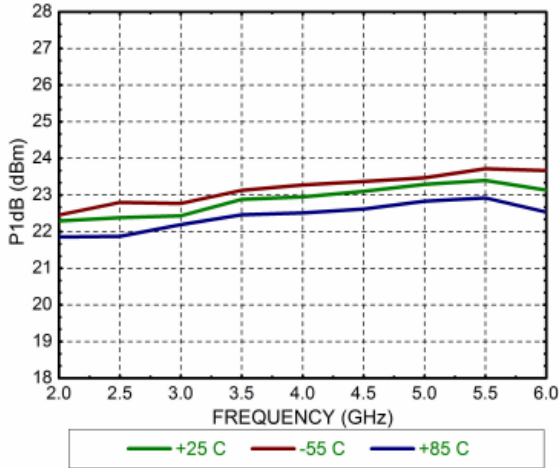


Noise Figure

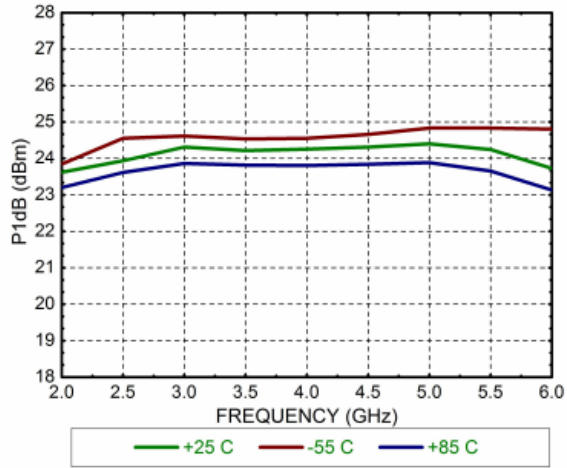




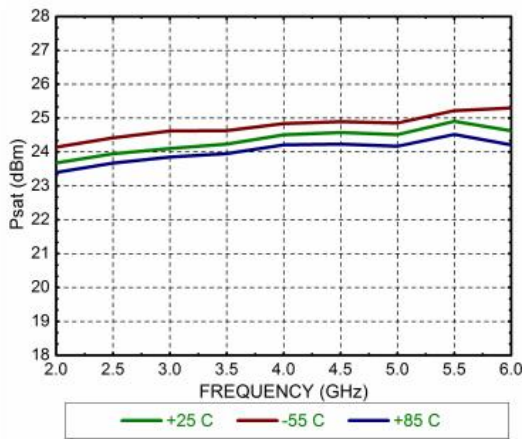
### P1dB VDD=+5V



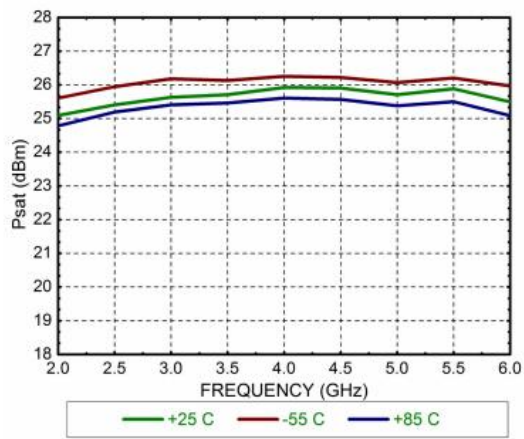
### P1dB VDD=+6V



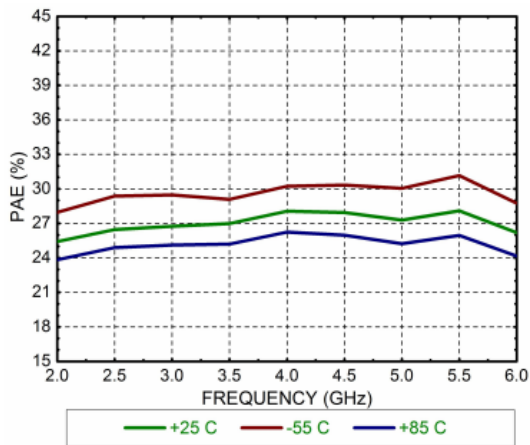
### Psat VDD=+5V



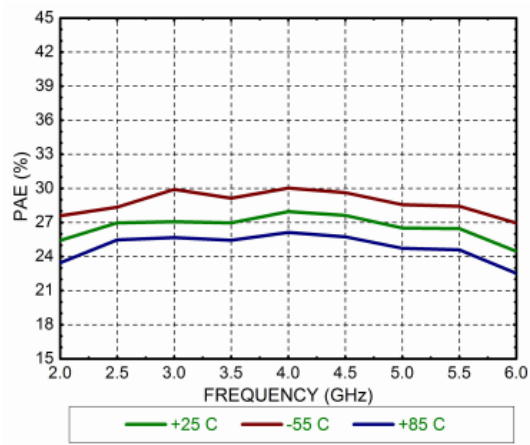
### Psat VDD=+6V



### PAE@Psat VDD=+5V

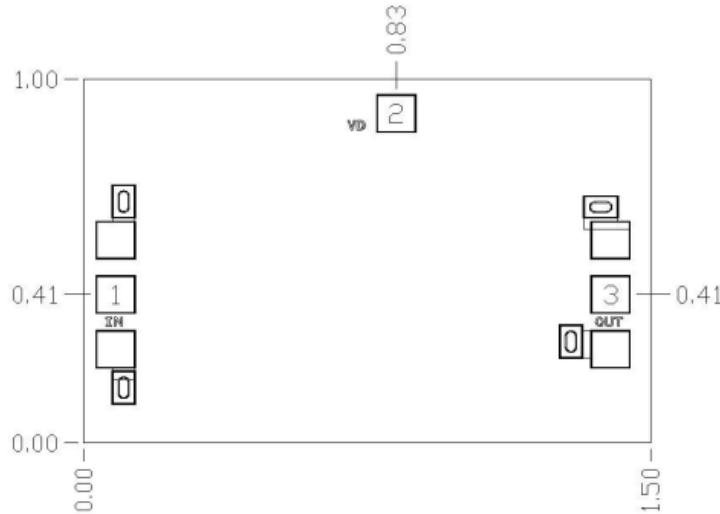


### PAE@Psat VDD=+6V





**Outline Drawing:**  
All Dimensions in um

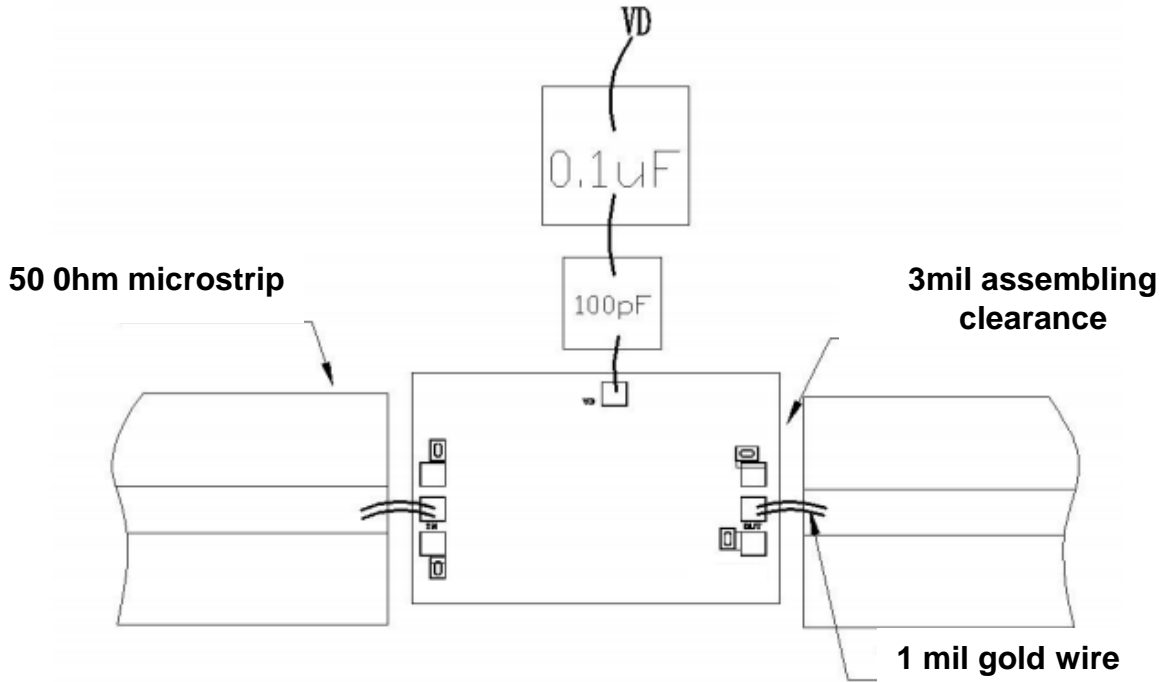


**Pad Description**

PAD	Function	Description
1	IN	This pad is AC coupling, 50 ohm matched
2	VD	This pad provides the power supply voltage of the amplifier and needs to be externally connected with the 100pF bypass capacitor.
3	OUT	This pad is AC coupling, 50 ohm matched
Die Bottom	GND	Die bottom must be connected to RF/DC ground



### Assembly Drawing



#### Notes:

1. Die thickness: 100 $\mu$ m
2. Typical bond pad is 100\*100  $\mu$ m<sup>2</sup>
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: +7V
2. RF input power: +18dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C