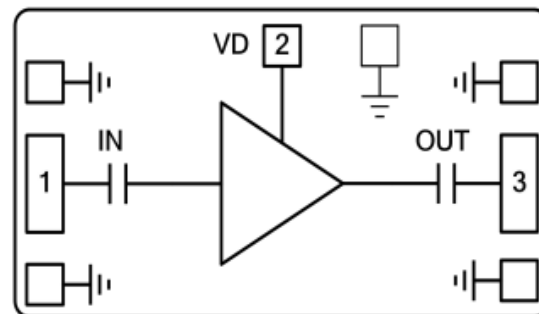


Features

- Single Biasing Voltage(Self Biased)
- Frequency: 0.5-4GHz
- Gain: 32dB
- Noise Figure: 0.7dB
- P1dB: +19.5dBm
- Power supply: +5V@65mA
- Input/Output: 50Ω
- Die Size: : 1.5 × 1.0 × 0.1 mm

Typical Applications

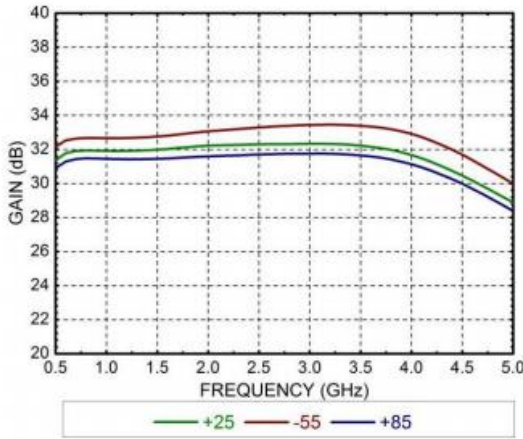
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Functional Block Diagram

Electrical Specifications
TA = +25°C, Vd = +5V, IDD = 65mA

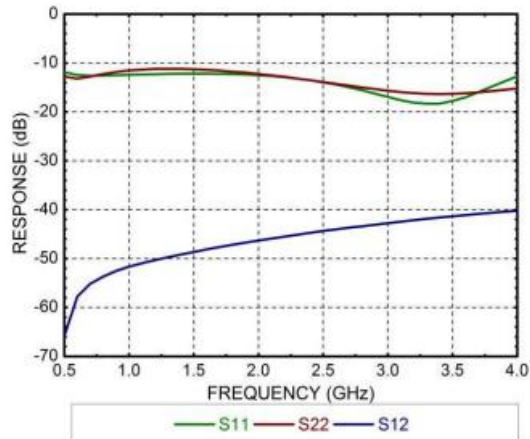
Parameters	Min.	Typ.	Max.	Units
Frequency		0.5-4		GHz
Gain		32		dB
Gain Flatness		±1.0		dB
Noise Figure		0.7		dB
Output 1dB Compression (P1dB)		19.5		dBm
Psat		20		dBm
Output IP3		30		dBm
Input Return Loss		13		dB
Output Return Loss		13		dB
Operating Current	40	65	90	mA



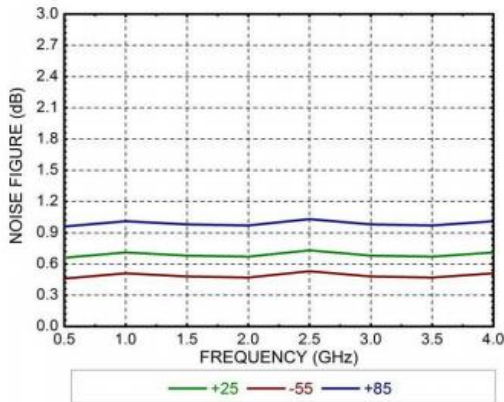
Gain



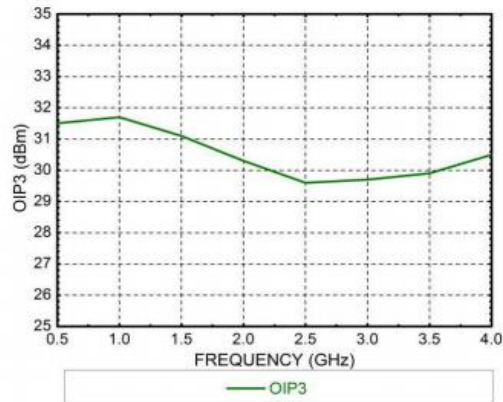
Return Loss & Reverse Isolation



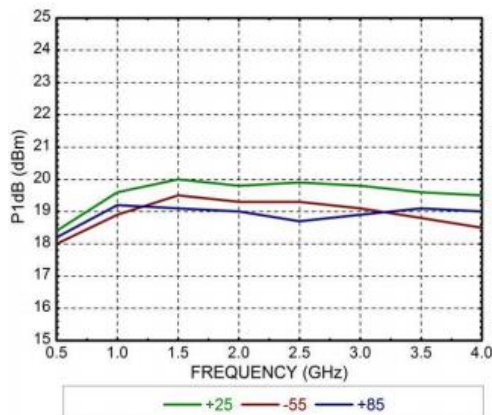
Noise Figure



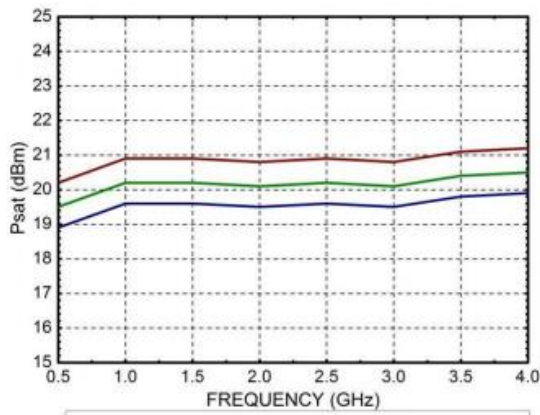
OIP3



Output Power P₁

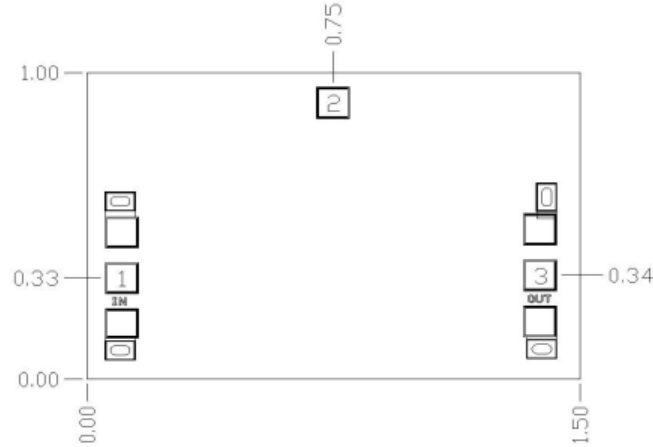


P_{sat}





Outline Drawing:
All Dimensions in μm

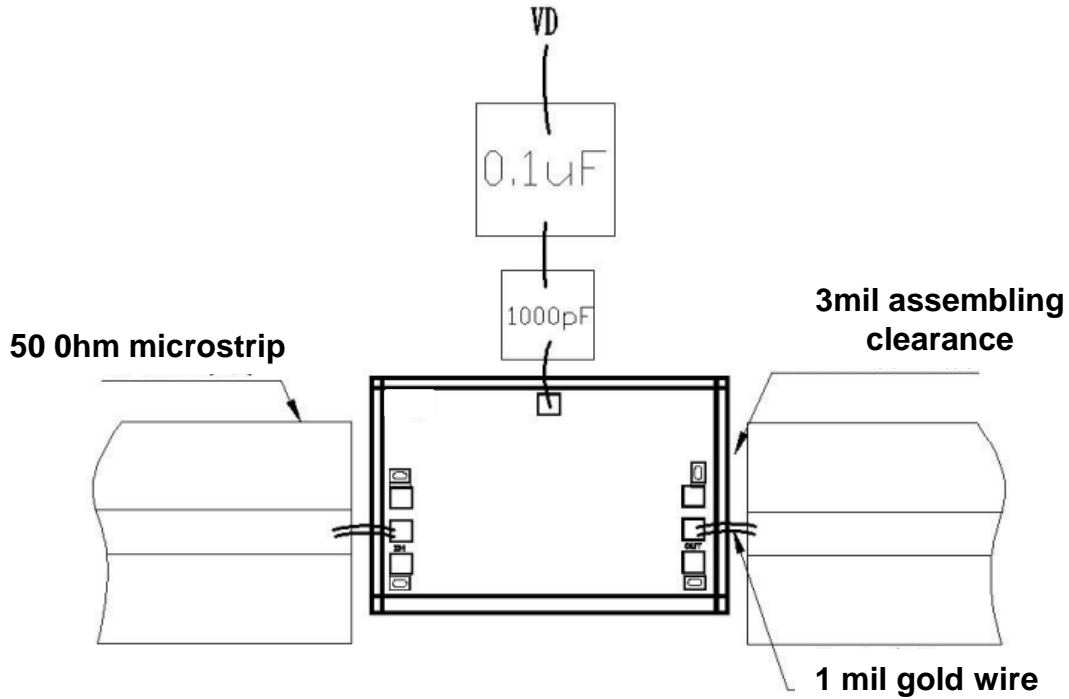


Pad Description

Pad	Function	Description
1	IN	This pad is AC coupling, 50 ohm matched
3	OUT	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 1000pF bypass capacitor.
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 μm^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: +6V
2. RF input power: +18dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C