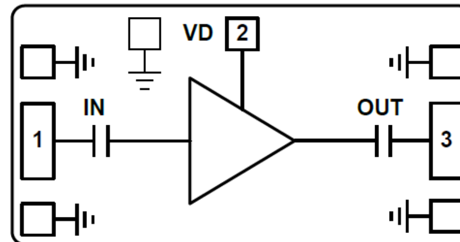
Features

- Frequency: 7-13GHz
- Small Signal Gain: 21dB
- Noise Figure: 1.1dB
- P1dB: 13dBm
- Power Supply: +5V/38mA
- Input/Output: 50Ω
- Die Size: 1.5 x 0.75 x 0.1 mm

Functional Block Diagram



Typical Applications

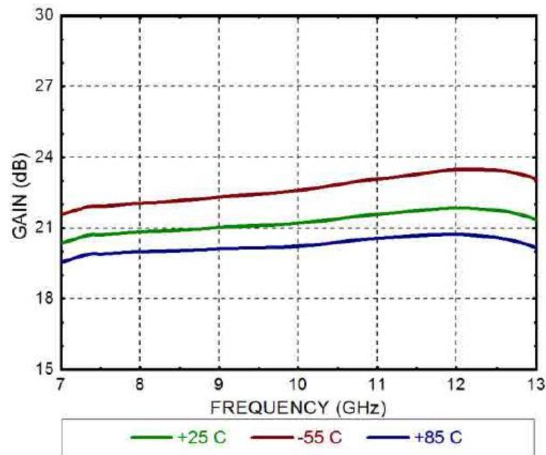
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

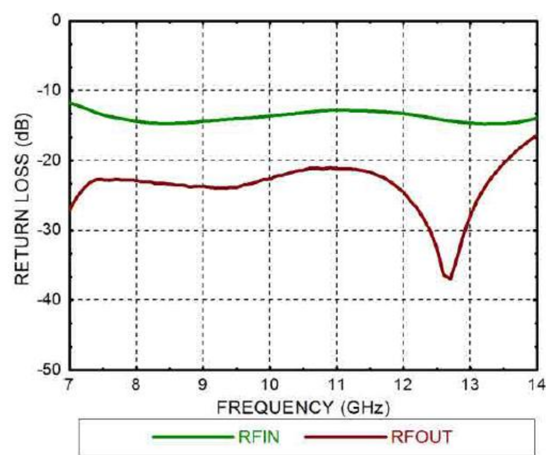
TA = +25ºC, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency		7-13		GHz
Small Signal Gain		21		dB
Gain Flatness		±0.5		dB
Noise Figure		1.1		dB
Output 1dB Compression (P1dB)		13		dBm
Psat		15		dBm
Output IP3		22		dBm
Input Return Loss		10		dB
Output Return Loss		20		dB
Operating current	20	38	45	mA

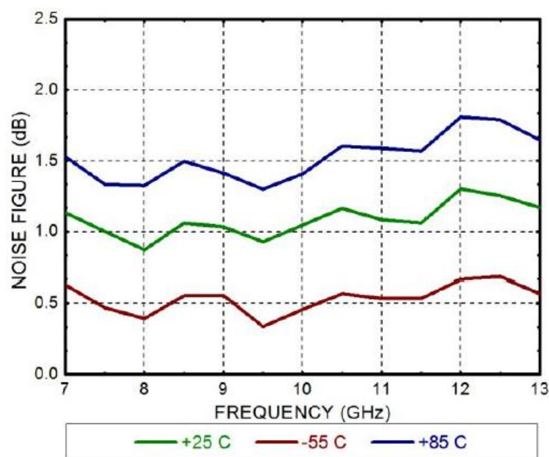
Gain vs. Frequency



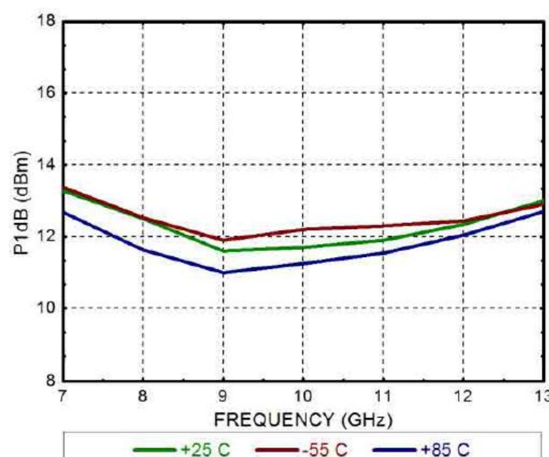
Return Loss vs. Frequency



Noise Figure vs. Frequency

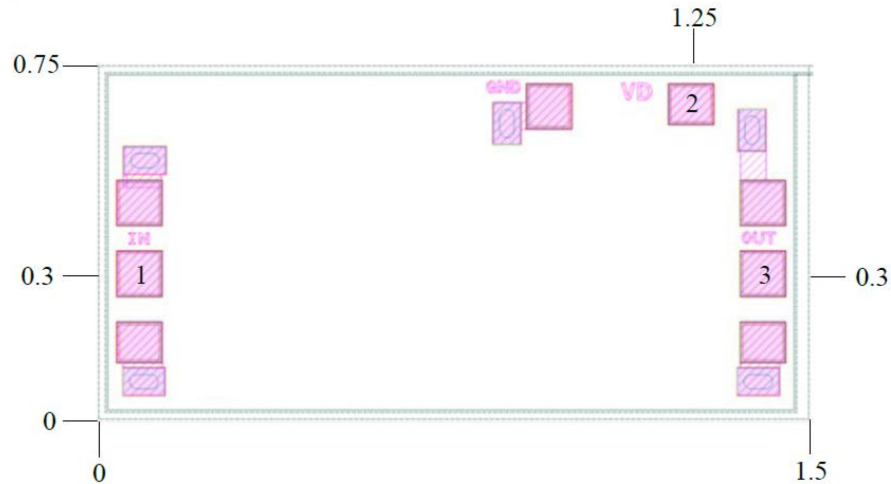


P1dB vs. Frequency



Outline Drawing:

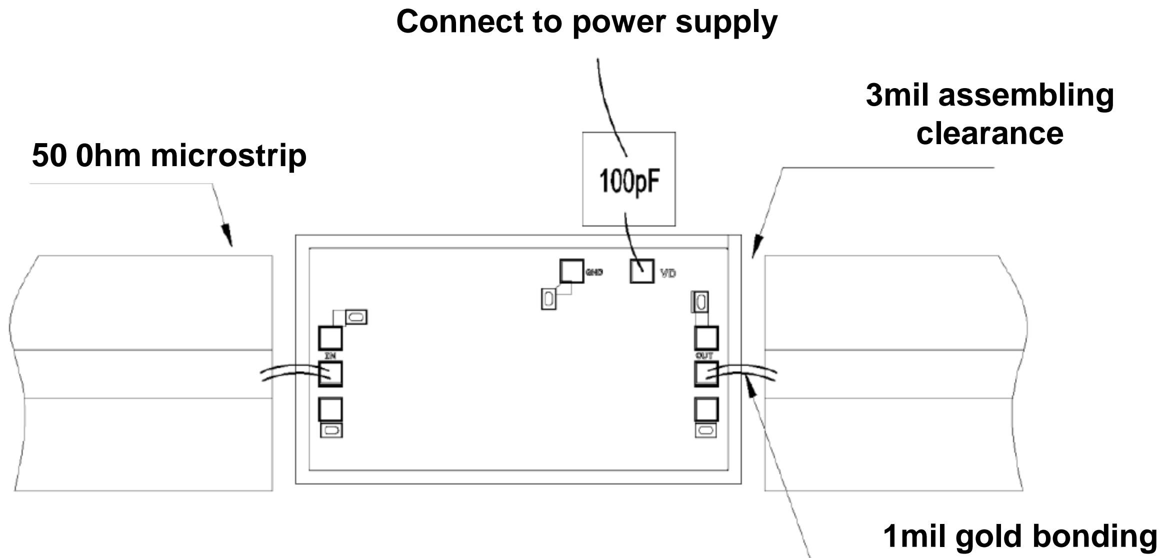
All Dimensions in mm



Pad Description

PAD	Function	Description
1	IN	This pad is AC coupling, 50 ohm matched.
2	VD	This pad supplies power supply for the amplifier. It needs extra 1000pF bypass capacitor.
3	OUT	This pad is AC coupling, 50 ohm matched.
Die Bottom	GND	Die backside must connect to RF/DC GND.

Assembly Drawing



Notes:
1. Die thickness: 100um
2. Typical bond pad is 100*100 μm²
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. Maximum drain voltage: +6V
2. Maximum input power: +18dBm
3. Operating temperature: -55℃ to +85℃
4. Storage temperature: -65℃ to +150℃