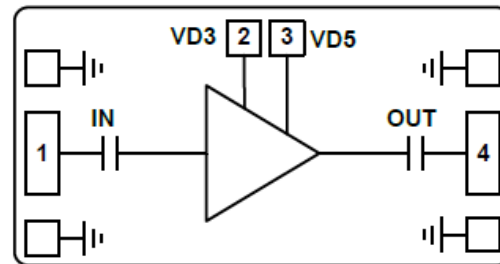


Features

- Operating Frequency: 18-32GHz
- Noise Figure: 2.3dB
- Gain: 15dB
- P1dB: +7dBm
- Self Biasing +5V / 3.3V@ 31 mA
- Input/Output: 50Ω matched
- Die Size: 1.0 x 1.0 x 0.1 mm

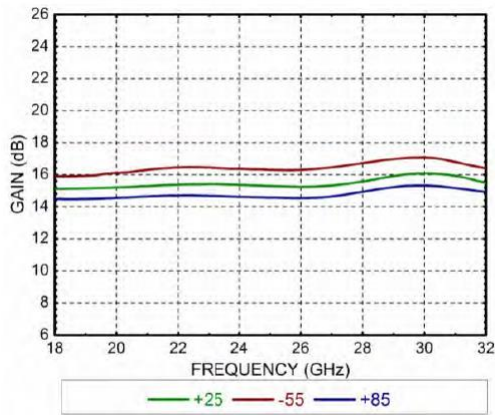
Typical Applications

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

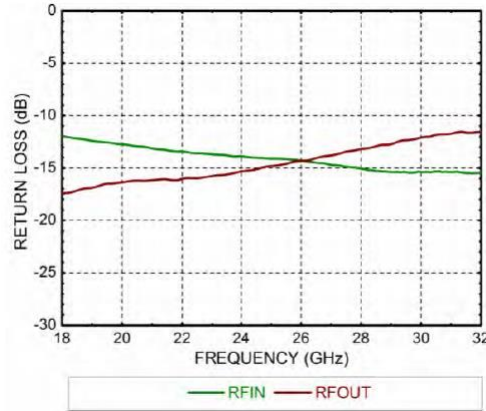
Functional Block Diagram

Electrical Specifications
TA = +25°C, Vdd = +5V/+3.3V Idd = 31mA

Parameters	Min.	Typ.	Max.	Units
Frequency	18 - 32			GHz
Gain		15		dB
Gain Flatness		±0.5		dB
Input Return Loss		13		dB
Output Return Loss		13		dB
Output 1dB Compression (P1dB)		7		dBm
Saturated Output Power (Psat)		9		dBm
Output Third Order Intercept (IP3)		15		dBm
Noise Figure		2.3		dB
Operating Current	20	31	50	mA

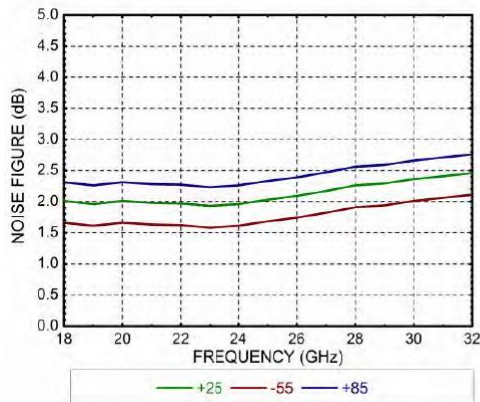
Gain



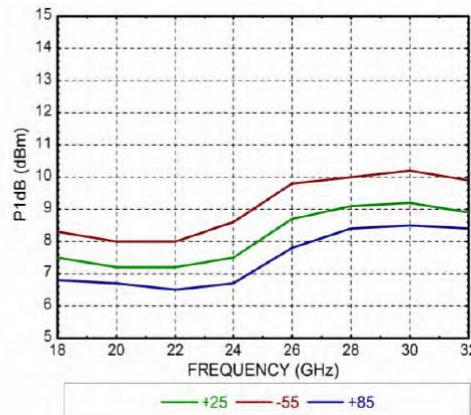
Return Loss



Noise Figure



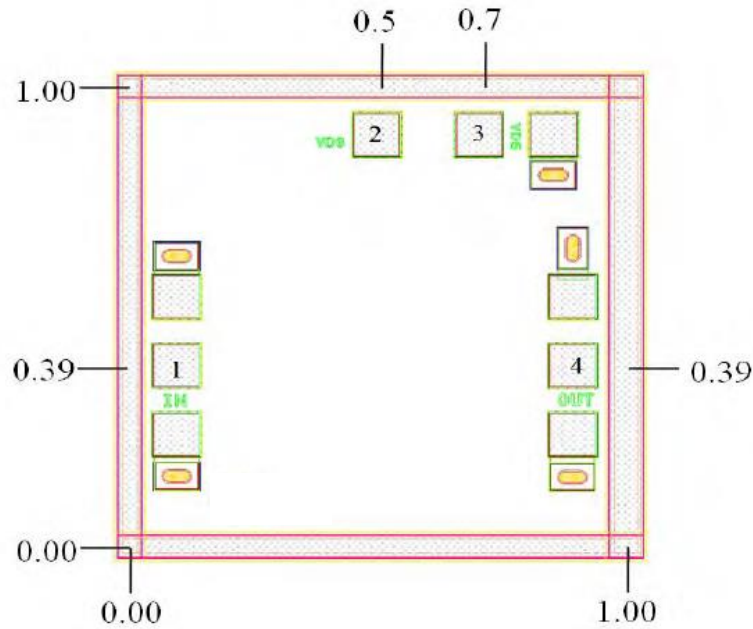
Output Power P_{1dB}





Outline Drawing:

All Dimensions in mm

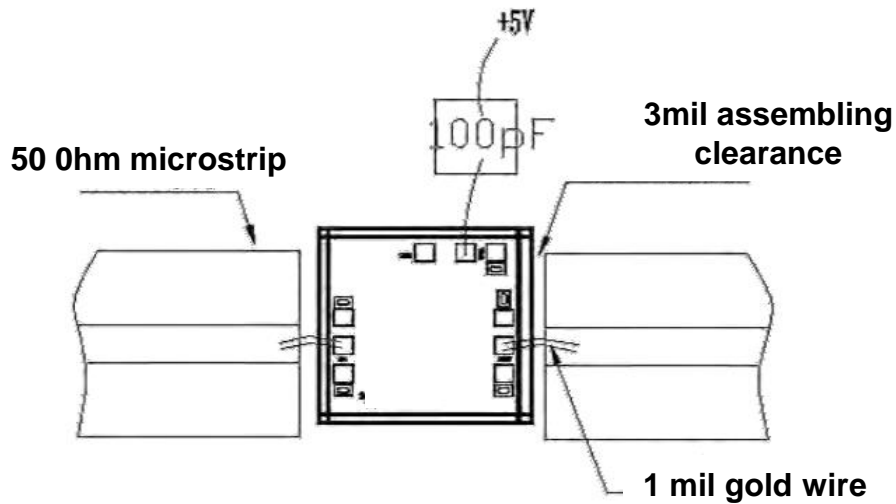
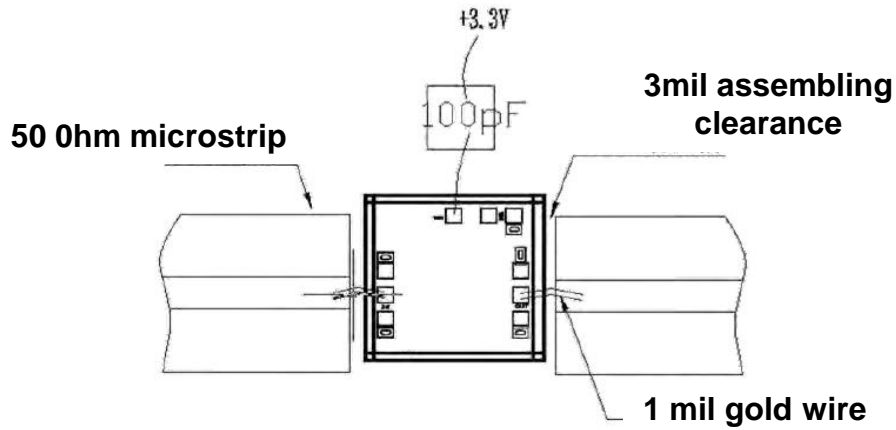


Pad Description

PAD	Function	Description
1	IN	This pad is AC coupling, and matched to 50Ω.
2	VD3	The pads provide the power supply voltage of the amplifier and needs to be externally connected with the 100pF bypass capacitor. Only one of VD3 or VD5 should be used.
3	VD5	
4	OUT	This pad is AC coupling, and matched to 50Ω.
Die Bottom	GND	Die bottom must be connected to RF/DC ground.



Assembly Drawing



Note:

VD3 connected to +3.3V
VD5 connected to +5V

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: +16dBm
3. Storage temperature: -65°C to +150°C
4. Operating temperature: -55°C to +85°C