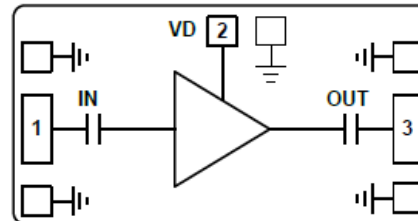


Features

- Single Biasing Voltage (Self Biased)
- Operating Frequency: 24-40GHz
- Noise Figure: 1.8dB
- Gain: 19.5dB
- P1dB: +12dBm
- Self Biasing +5V @ 40 mA
- Input/Output: 50Ω matched
- Die Size: 1.5 x 0.8 x 0.1 mm

Typical Applications

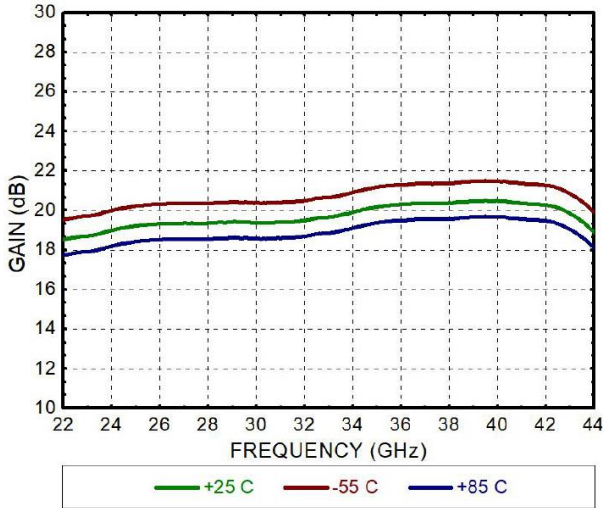
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Functional Block Diagram

Electrical Specifications
TA = +25°C, Vdd = +5V, Idd = 40mA

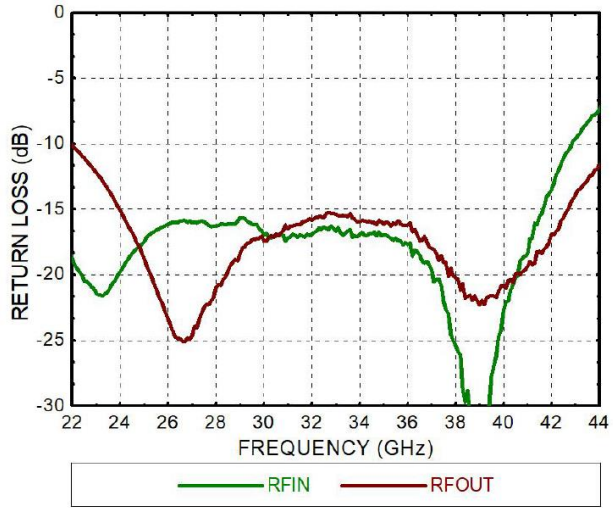
Parameters	Min.	Typ.	Max.	Units
Frequency	24-40			GHz
Gain		19.5		dB
Gain Flatness		±0.4		dB
Input Return Loss		13		dB
Output Return Loss		15		dB
Output 1dB Compression (P1dB)		12		dBm
Saturated Output Power (Psat)		13.5		dBm
Output Third Order Intercept (IP3)		21		dBm
Noise Figure		1.8		dB
Operating Current	30	40	50	mA



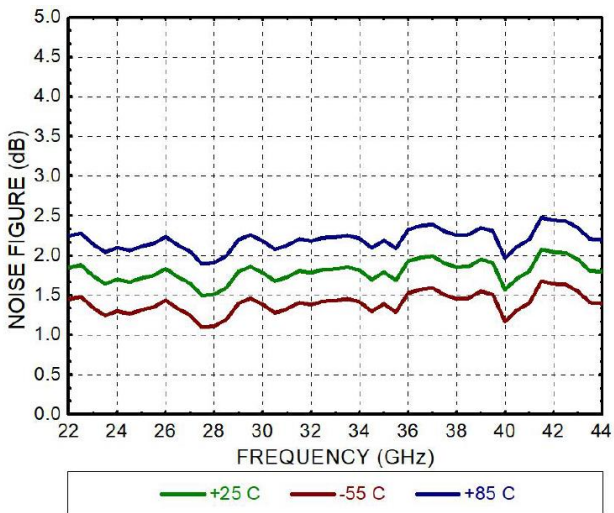
Gain



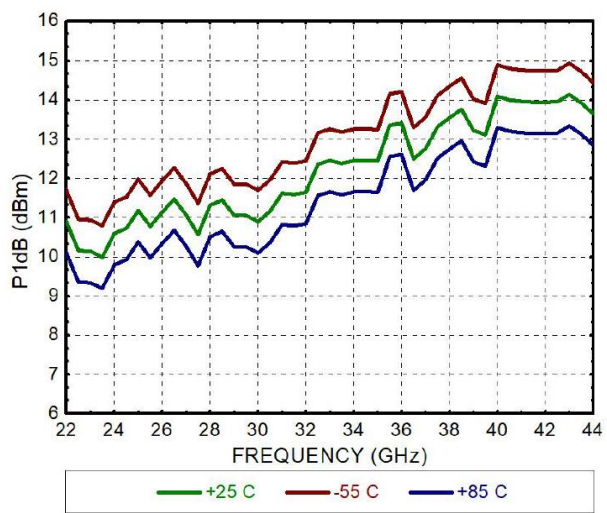
Return Loss



Noise Figure



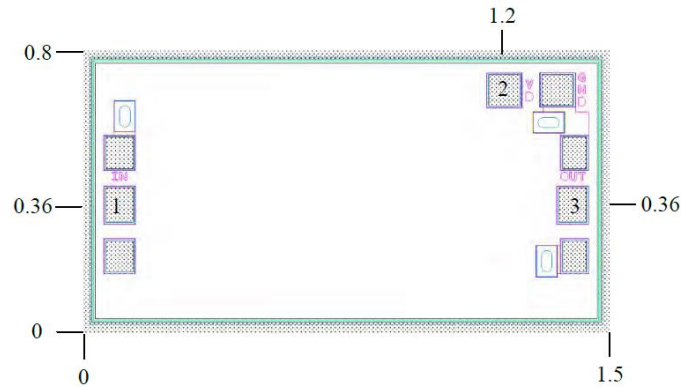
Output Power P_{1}





Outline Drawing:

All Dimensions in mm

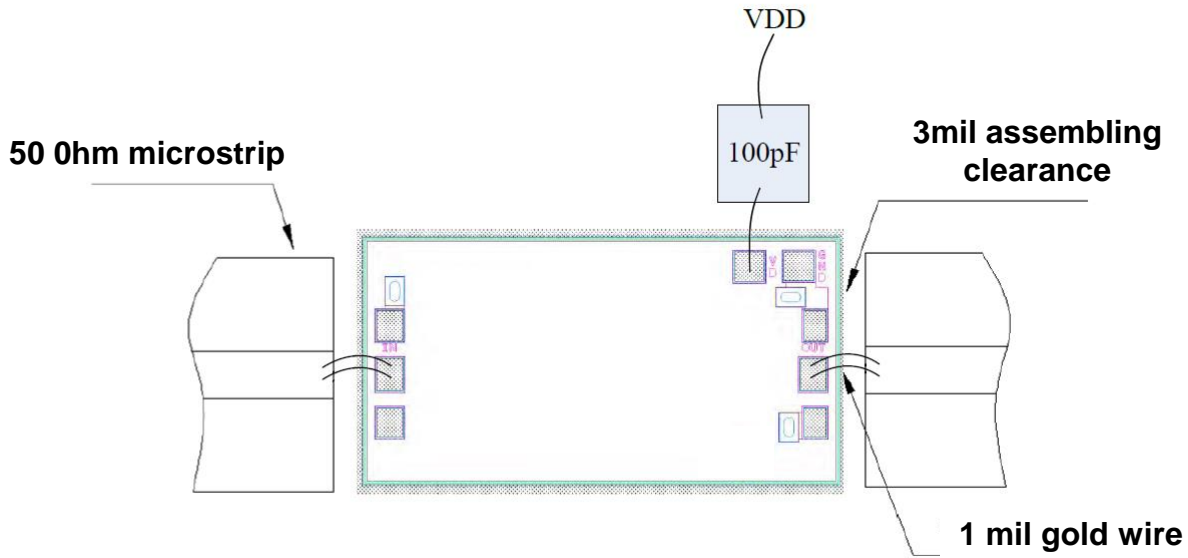


Pad Description

PAD	Function	Description
1	IN	This pad is AC coupling, and matched to 50Ω.
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, and matched to 50Ω.
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. Storage temperature: -65°C to +150°C
4. Operating temperature: -55°C to +85°C