

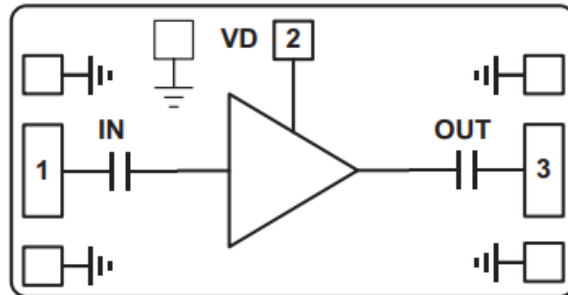
Features

- Single Biasing Voltage (Self Biased)
- Noise Figure: 1.1dB
- Gain: 21dB
- P1dB: +13dBm
- Biasing: +5V @ 35mA
- Impedance: 50Ω
- Die Size: 1.85 x 1.0 x 0.1 mm

Typical Applications

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

Functional Block Diagram



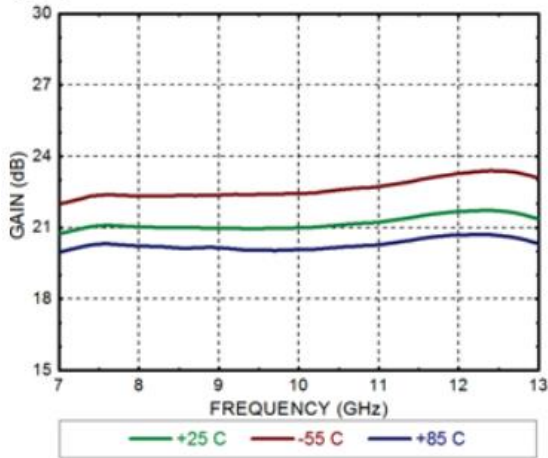
Electrical Specifications

TA = +25°C, Vdd = +5V Idd = 35mA

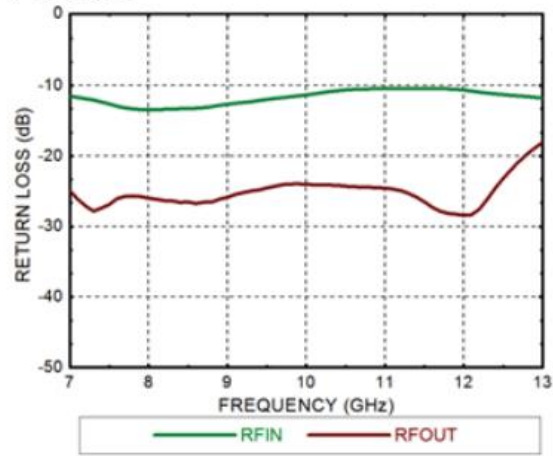
Parameters	Min.	Typ.	Max.	Units
Frequency		7 -13		GHz
Gain		21		dB
Gain Flatness		±0.5		dB
Input Return Loss		10		dB
Output Return Loss		20		dB
Output 1dB Compression (P1dB)		13		dBm
Saturated Output Power (Psat)		16		dBm
Output Third Order Intercept (IP3)		22		dBm
Noise Figure		1.1		dB
Current	20	35	45	mA



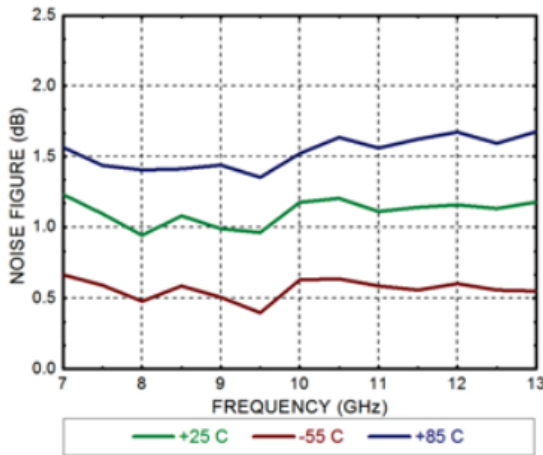
Gain



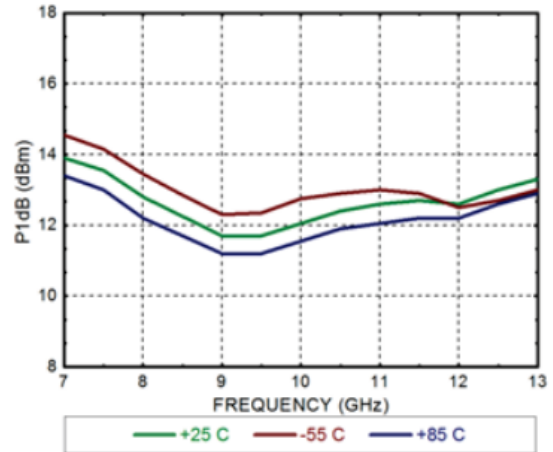
Return



Noise Figure

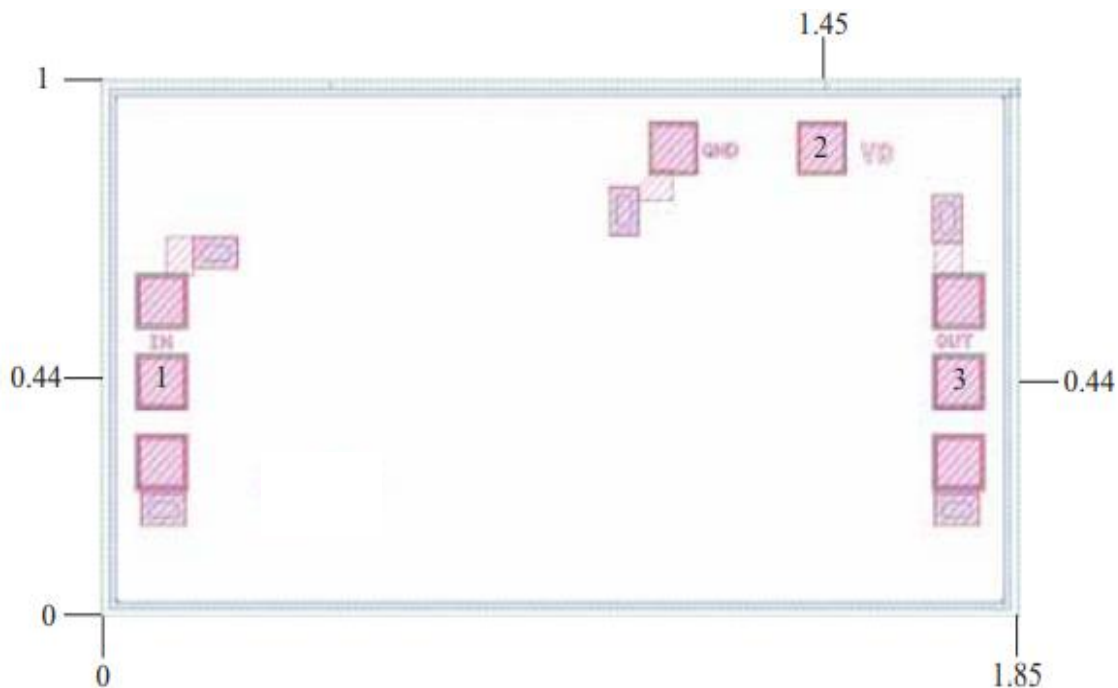


Output Power





Outline Drawing: All Dimensions in mm

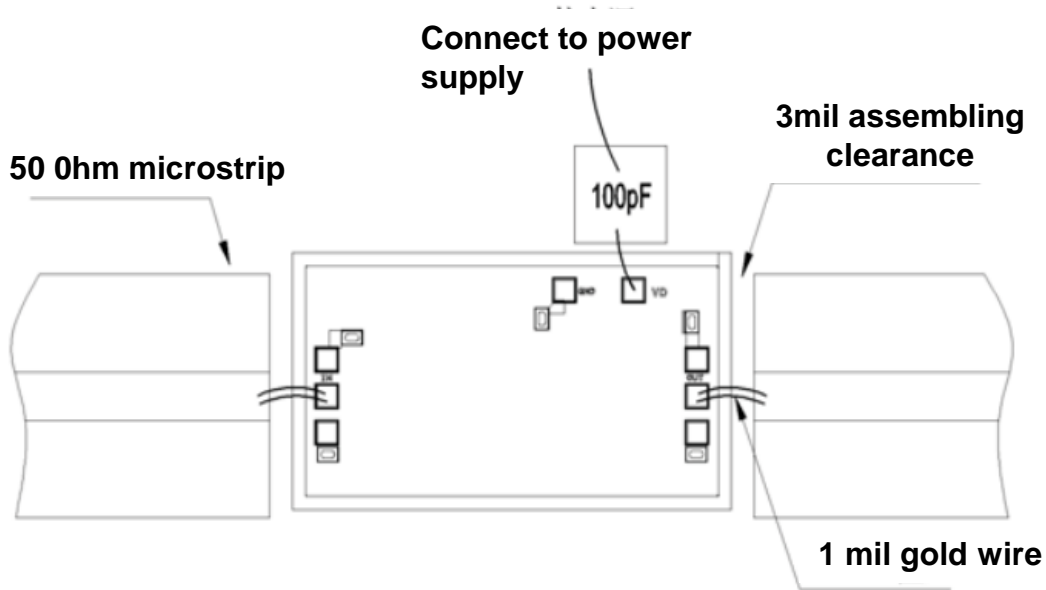


Pad Description

PAD	Function	Description
1	IN	Input AC coupling 50Ω Impedance.
2	VD	This pad provides power supply voltage for the amplifier and external 100pF bypass capacitor is required.
3	OUT	Output AC coupling 50Ω Impedance.
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 +175°C
4. Operating temperature: -55°C to +85°C