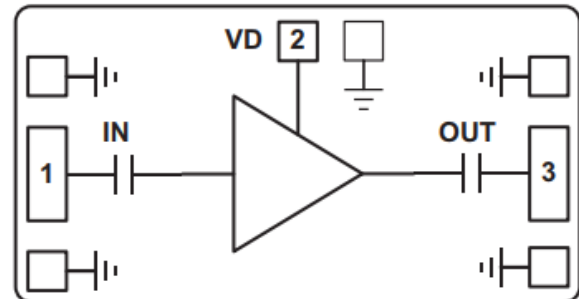


Features

- Single Biasing Voltage (Self Biased)
- 1dB Positive Slope
- Noise Figure: 3dB
- Gain: 21dB
- P1dB: +14dBm
- Biasing +5V @ 42 mA
- Impedance: 50Ω
- Die Size: 2.7 x 1.3 x 0.1 mm

Typical Applications

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

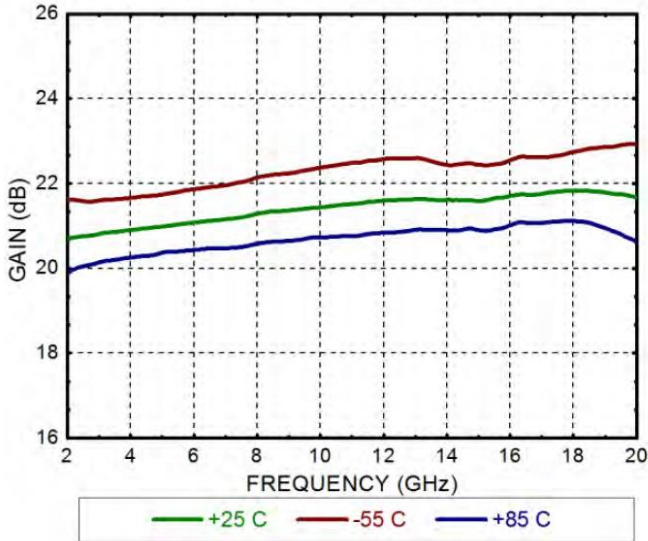
Functional Block Diagram

Electrical Specifications

TA = +25°C, Vdd = +5V Idd = 42mA

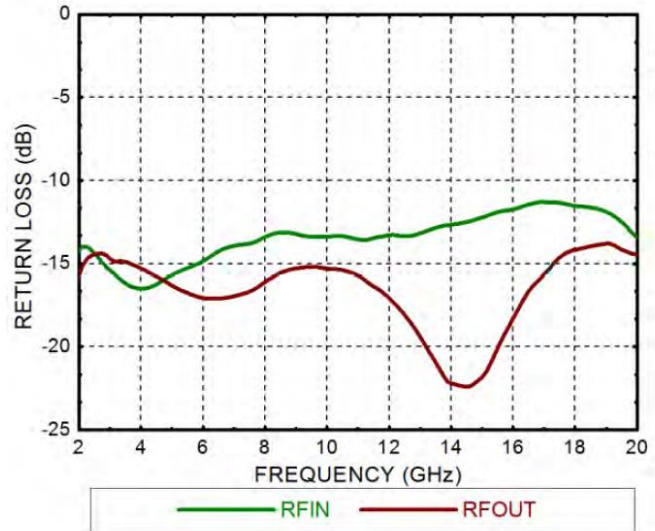
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	2 -6			6-12			12-20			GHz
Gain		20.8			21.3			21.7		dB
Gain Flatness		±0.2			±0.3			±0.1		dB
Input Return Loss		15			12			12		dB
Output Return Loss		15			15			15		dB
Output 1dB Compression (P1dB)		15			14.5			14		dBm
Saturated Output Power (Psat)		17.5			17			16		dBm
Output Third Order Intercept (IP3)		24			23.5			23		dBm
Noise Figure		3.2			3			2.5		dB
Current	30	42	70	30	42	70	30	42	70	mA



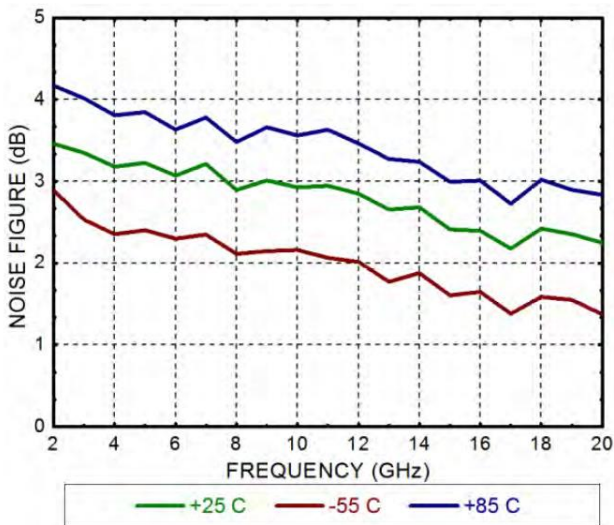
Gain



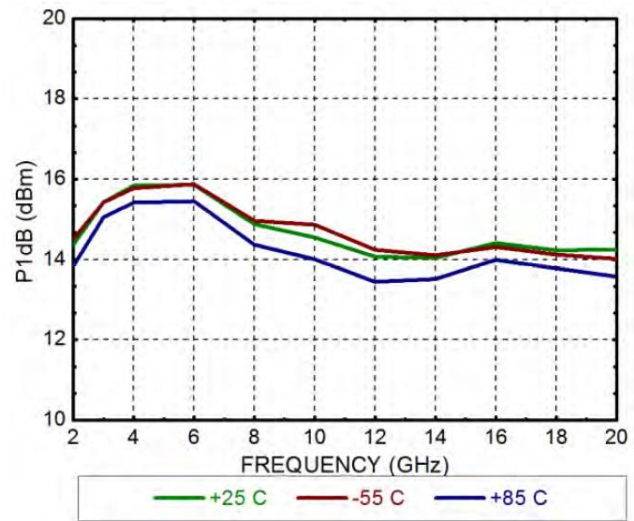
Return Loss



Noise Figure



Output Power





Outline Drawing: All Dimensions in mm

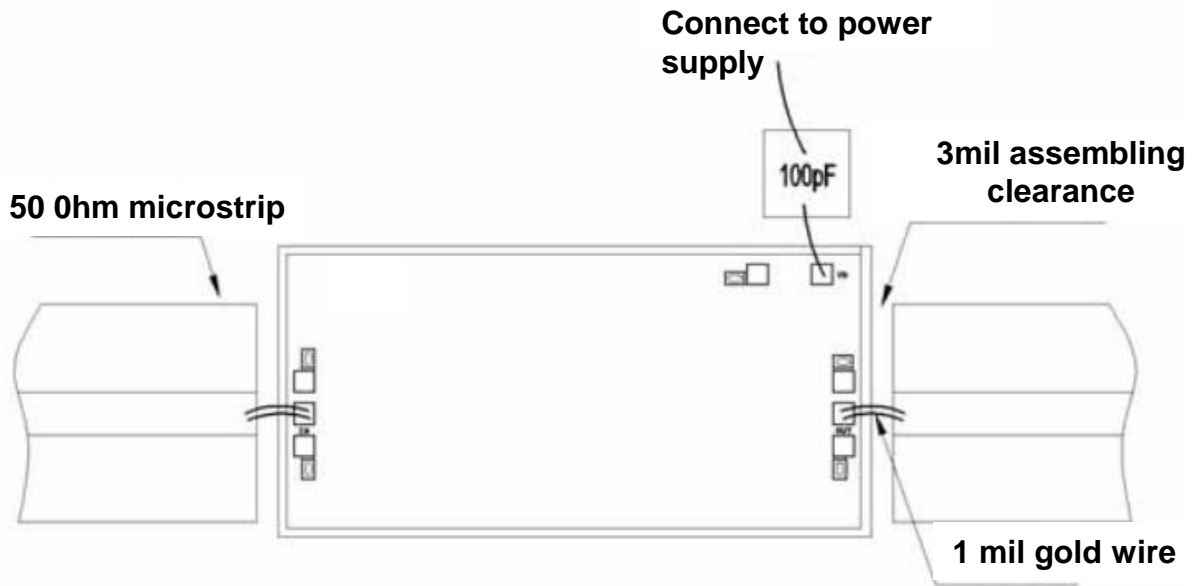


Pad Description

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: +17dBm
3. Storage temperature: -65°C to +175°C
4. Operating temperature: -55°C to +85°C