Features

- Single Biasing Voltage (Self Biased)
- Frequency: 1-9GHz
- Small Signal Gain: 28dB
- Noise Figure: 0.7 dB typ.
- P1dB: 14dBm
- Power supply: +5V/67mA
- Input/Output: 50Ω
- Die Size: 1.85 x 1.25 x 0.09 mm

Typical Applications

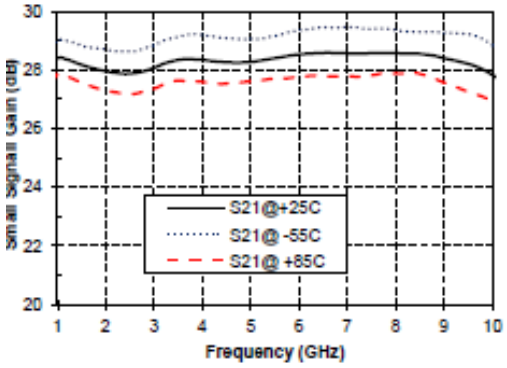
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

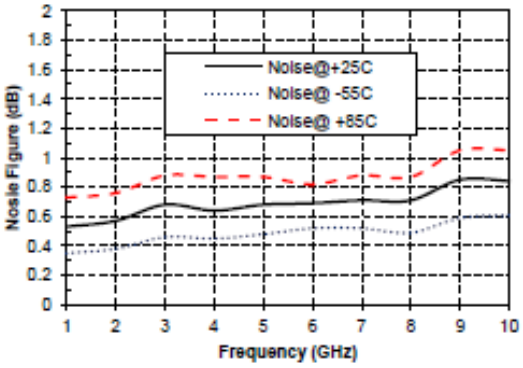
TA = +25ºC, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency		**1-9**		**GHz**
Small Signal Gain	**27**	**28**	**29.5**	**dB**
Gain Flatness		**±0.5**		**dB**
Noise Figure		**0.7**		**dB**
Output 1dB Compression (P1dB)		**14**		**dBm**
Saturated Output Power (Psat)		**15**		**dBm**
Input Return Loss		**11**		**dB**
Output Return Loss		**14**		**dB**
Static current	**50**	**67**	**80**	**mA**

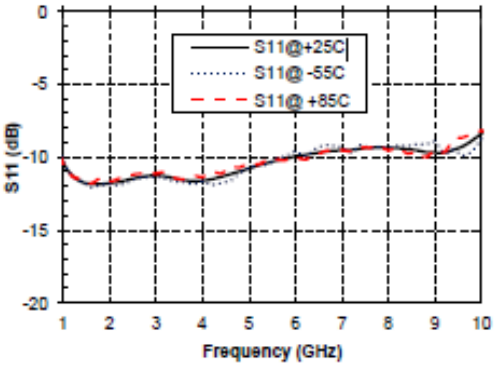
Gain vs. Frequency



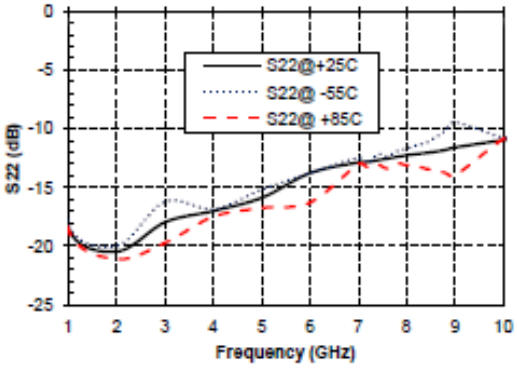
Noise Figure vs. Frequency



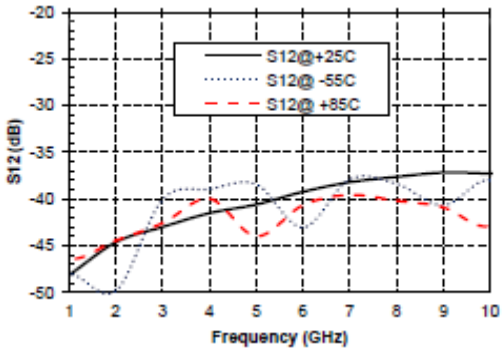
Input Return Loss vs. Frequency



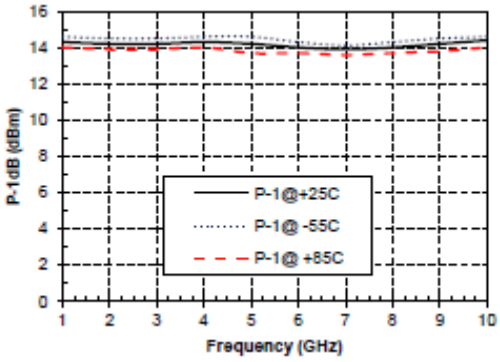
Output Return Loss vs. Frequency



Reverse Isolation vs. Frequency

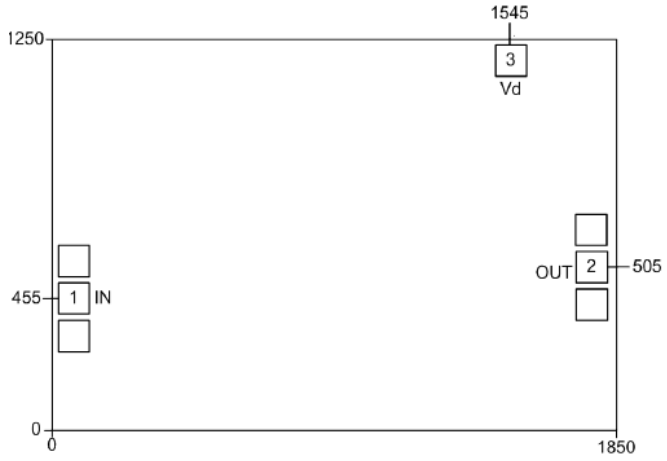


P1dB vs. Frequency



Outline Drawing:

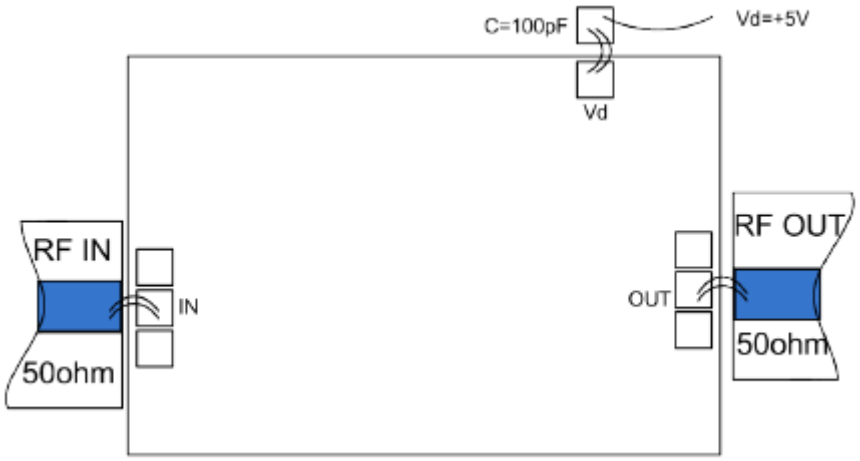
All Dimensions in µm



Pad Description

Pad	Function	Description
1	RF IN	RF signal input terminal, blocking capacitor required.
2	RF OUT	RF signal output terminal, no blocking capacitor required.
3	VDD	Amplifier drain bias; external 100pF bypass capacitor required.
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 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: +7V
2. Maximum input power: +20dBm
3. Operating temperature: -55℃ to +85℃
4. Storage temperature: -65℃ to +150℃