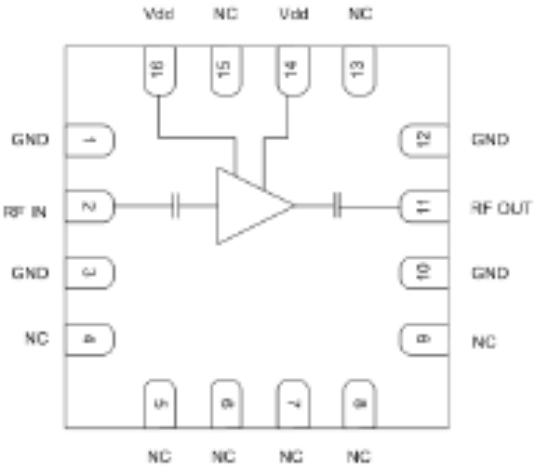
Features

- Frequency: 7-15GHz
- Small Signal Gain: 17dB
- Noise Figure: 3.2dB typ./3.6dB max.
- P1dB: 14dBm
- Psat: 16dBm
- Power supply: +5V/60mA
- Input/Output: 50Ω
- Die Size: 4.0 x 4.0 mm Lead-free surface mount

Functional Block Diagram



Typical Applications

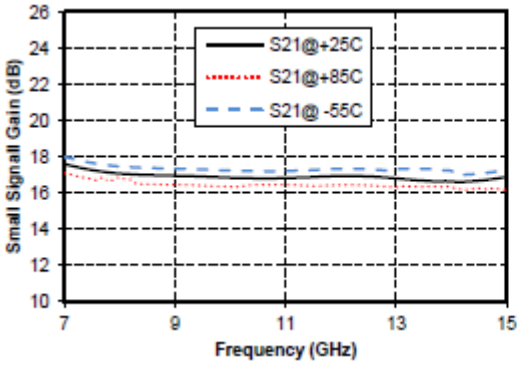
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

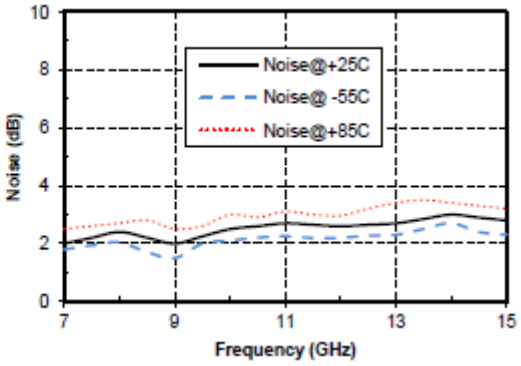
TA = +25°C, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency		7-15		GHz
Small Signal Gain	16.5	17	17.5	dB
Gain Flatness		±0.5		dB
Noise Figure	2.0	2.5	3.0	dB
Output 1dB Compression (P1dB)	13	14	15	dBm
Saturated Output Power (Psat)	15.5	16	16.5	dBm
Input Return Loss		10		dB
Output Return Loss		10		dB
Static Current		60		mA

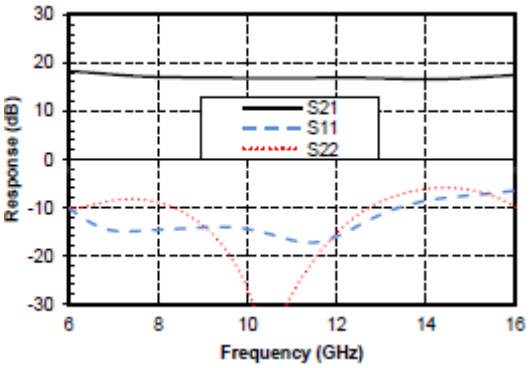
Gain vs. Frequency



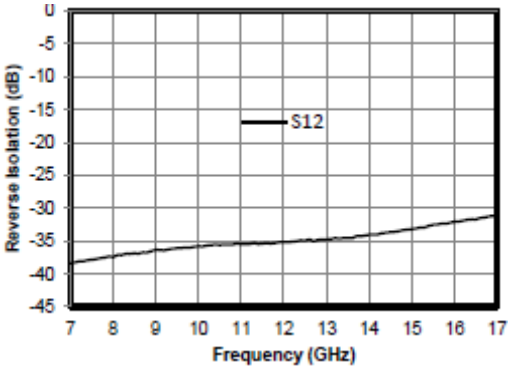
Noise Figure vs. Frequency



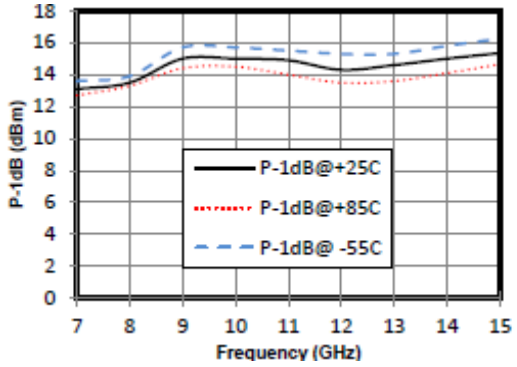
Gain&Return Loss vs. Frequency



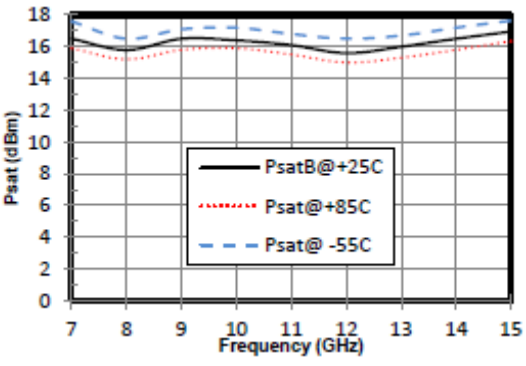
Reverse Isolation vs. Frequency



P1dB vs. Frequency

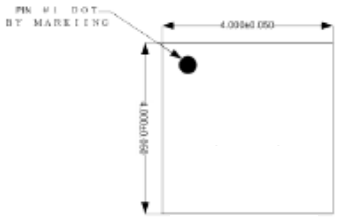


Psat vs. Frequency

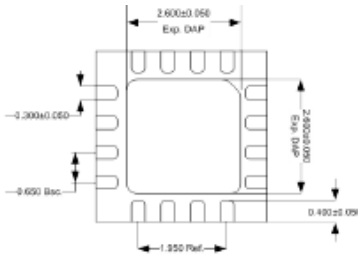


Outline Drawing:

All Dimensions in µm



Top view

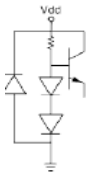
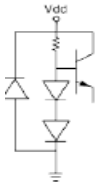


Bottom view

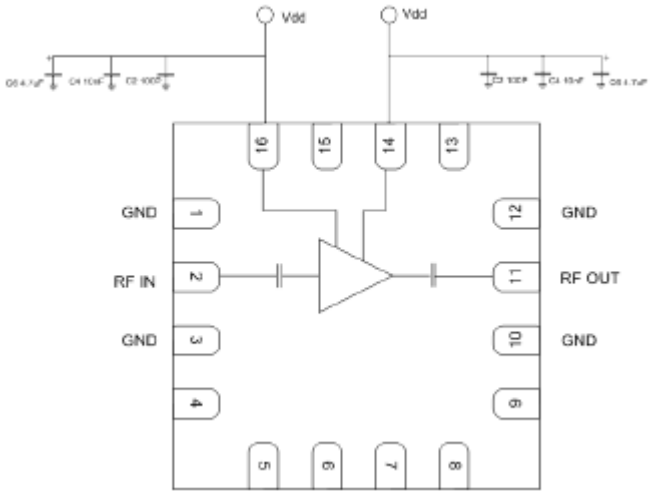
Side view

A	Max.	0.800
	Nom.	0.750
	Min.	0.700

Pad Description

Pad	Function	Description	Equivalent Circuit
2	RF IN	RF signal input terminal, no blocking capacitor required.	
11	RF OUT	RF signal output terminal, no blocking capacitor required.	
4, 5, 6, 7, 8, 9, 13, 15	NC	No welding required.	
14	Vd1	Amplifier drain bias.	
16	Vd2	Amplifier drain bias.	
1, 3, 10, 12	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. Maximum drain voltage: +7V
2. Maximum input power: +20dBm
3. Operating temperature: -55℃ to +85℃
4. Storage temperature: -65℃ to +150℃