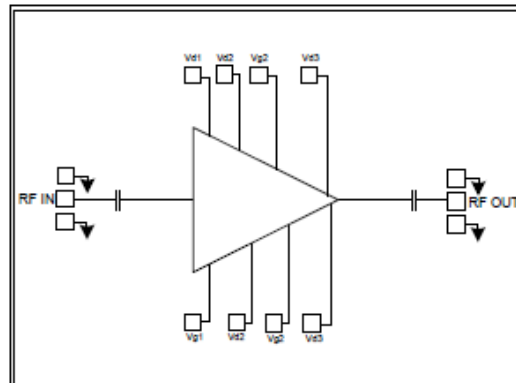


Features

- Frequency: 33-37GHz
- Small Signal Gain: 15dB
- P1dB: 27.5dBm
- Psat: 28dBm
- Power Supply: +5.5V/650mA
- Input/Output: 50Ω
- Die Size: 2.95 x 1.85 x 0.1 mm

Typical Applications

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

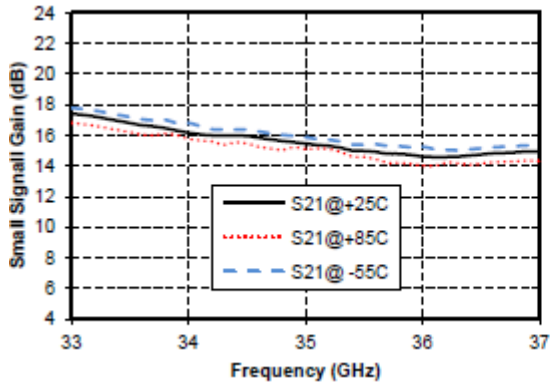
Functional Block Diagram

Electrical Specifications

TA = +25°C, Vd = +5.5V

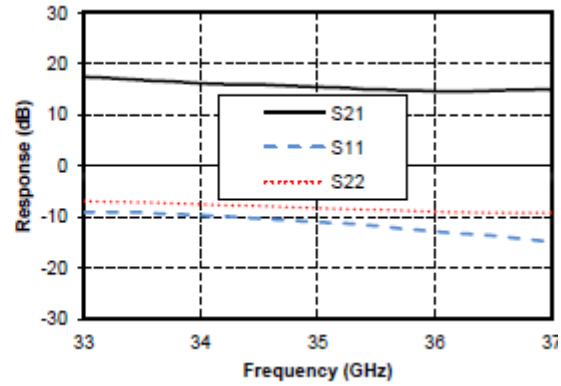
Parameters	Min.	Typ.	Max.	Units
Frequency	33-37			GHz
Small Signal Gain	14.5	15	16	dB
Gain Flatness		±0.75		dB
Output 1dB Compression (P1dB)	27.0	27.5	28.5	dBm
Saturated Output Power (Psat)	27.5	28	28.8	dBm
Input Return Loss		11		dB
Output Return Loss		8		dB
Static Current		650		mA
* Adjust VG (-2V-0V) to obtain device current of 650mA.				



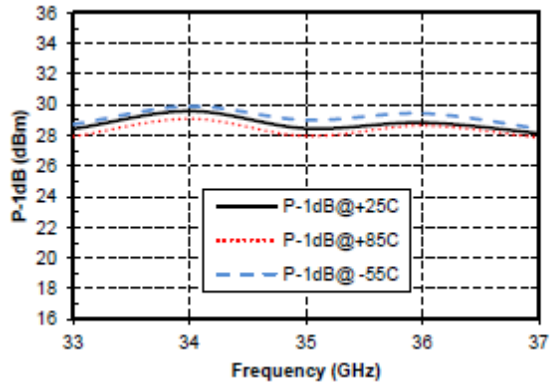
Gain vs. Frequency



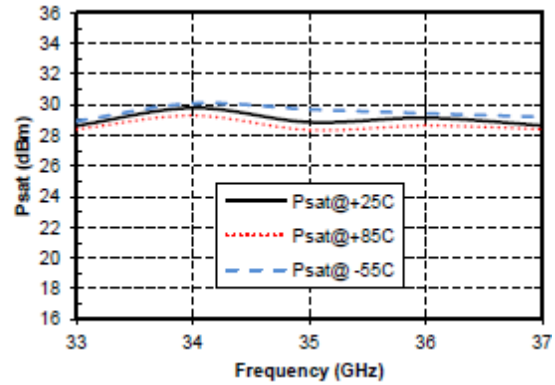
Gain&Return Loss vs. Frequency



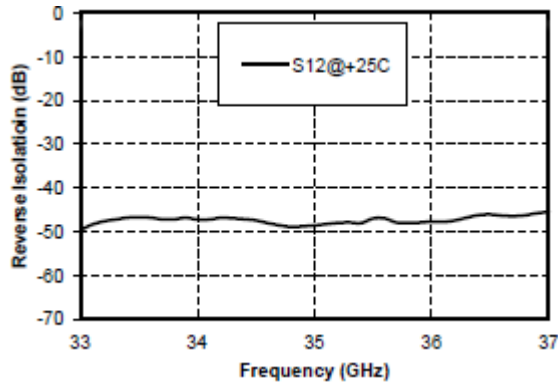
P1dB vs. Frequency



Psat vs. Frequency

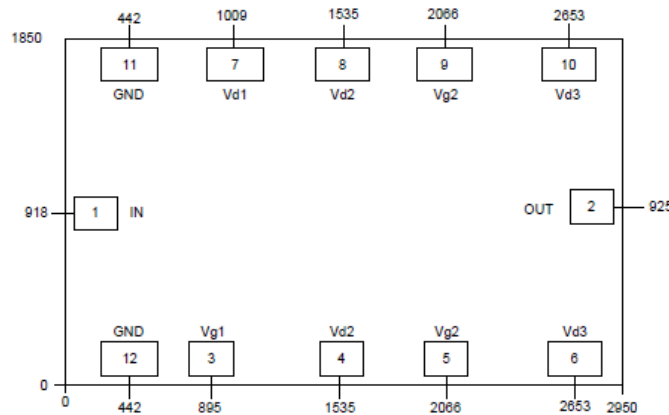


Reverse Isolation vs. Frequency





Outline Drawing:
All Dimensions in μm

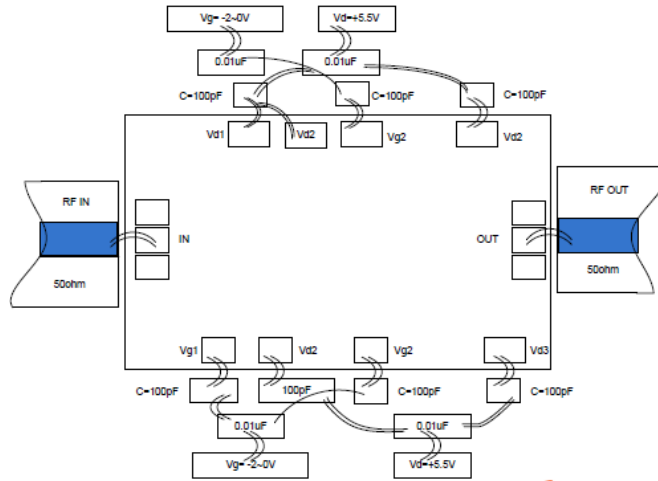


Pad Description

Pad	Function	Description	Equivalent Circuit
1	RF IN	RF signal input terminal; no blocking capacitor required.	
2	RF OUT	RF signal output terminal; no blocking capacitor required.	
7	Vd1	Amplifier drain bias; external 100pF bypass capacitor required.	
4, 8	Vd2	Amplifier drain bias; external 100pF bypass capacitor required.	
6, 10	Vd3	Amplifier drain bias; external 100pF bypass capacitor required.	
3	Vg1	Amplifier gate bias; external 100pF bypass capacitor required.	
5, 9	Vg2	Amplifier gate bias; external 100pF bypass capacitor required.	
11, 12	GND	Ground point.	
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. Maximum drain voltage: +7V
2. Maximum gate bias: -3V
3. Maximum input power: +18dBm
4. Operating temperature: -55°C to +85°C
5. Storage temperature: -65°C to +150°C