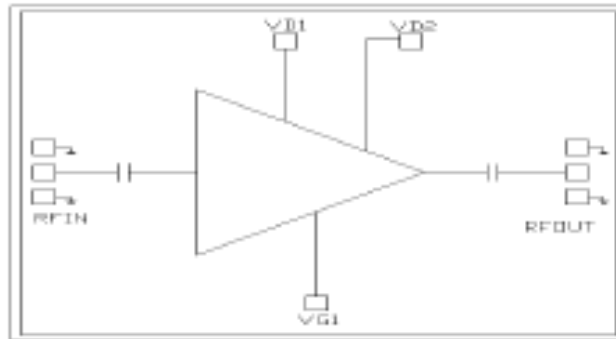


Features

- Frequency: 15-22GHz
- Small Signal Gain: 15dB
- P1dB: 24dBm
- Psat: 25dBm
- Power Supply: +5V/180mA
- Input/Output: 50Ω
- Die Size: 2.2 x 1.13 x 0.1 mm

Functional Block Diagram



Typical Applications

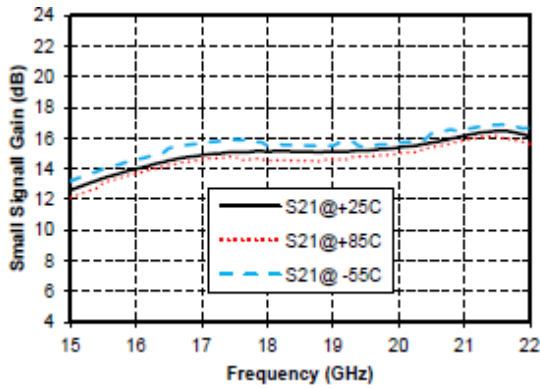
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

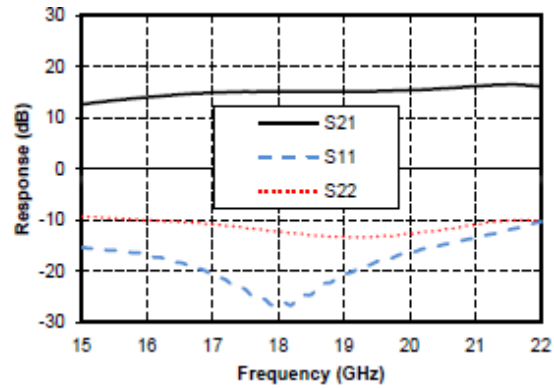
TA = +25°C, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency	15-22			GHz
Small Signal Gain	12.5	15	16.5	dB
Gain Flatness	±2			dB
Output 1dB Compression (P1dB)	23.5	24	24.5	dBm
Saturated Output Power (Psat)	24.5	25	26.5	dBm
Input Return Loss		15		dB
Output Return Loss		10		dB
Static Current		180		mA
* Adjust VG (-2V-0V) to obtain device current of 180mA.				

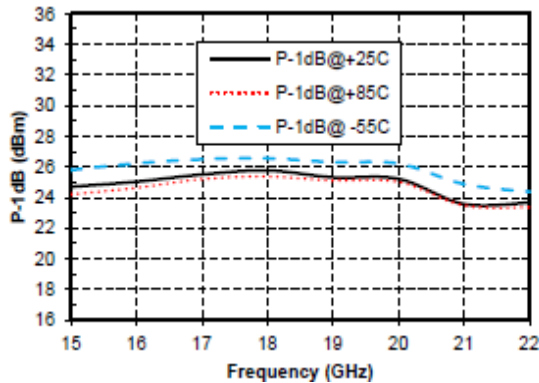
Gain vs. Frequency



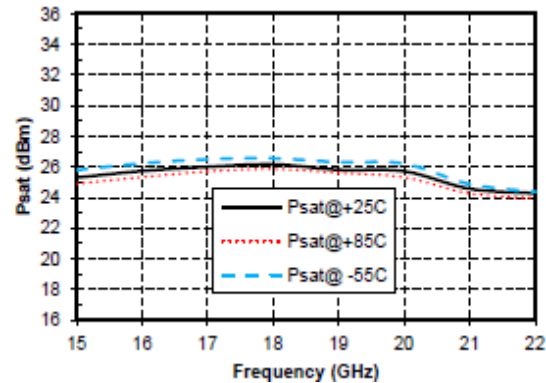
Gain&Input Return Loss vs. Frequency



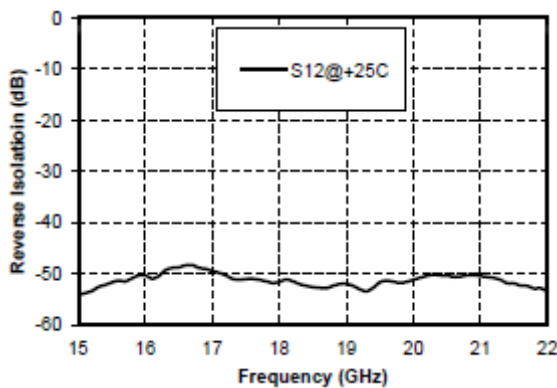
P1dB vs. Frequency



Psat vs. Frequency

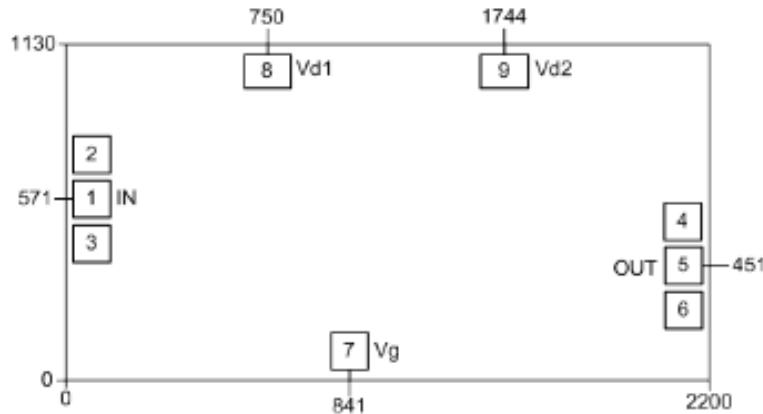


Reverse Isolation vs. Frequency





Outline Drawing:
All Dimensions in μm

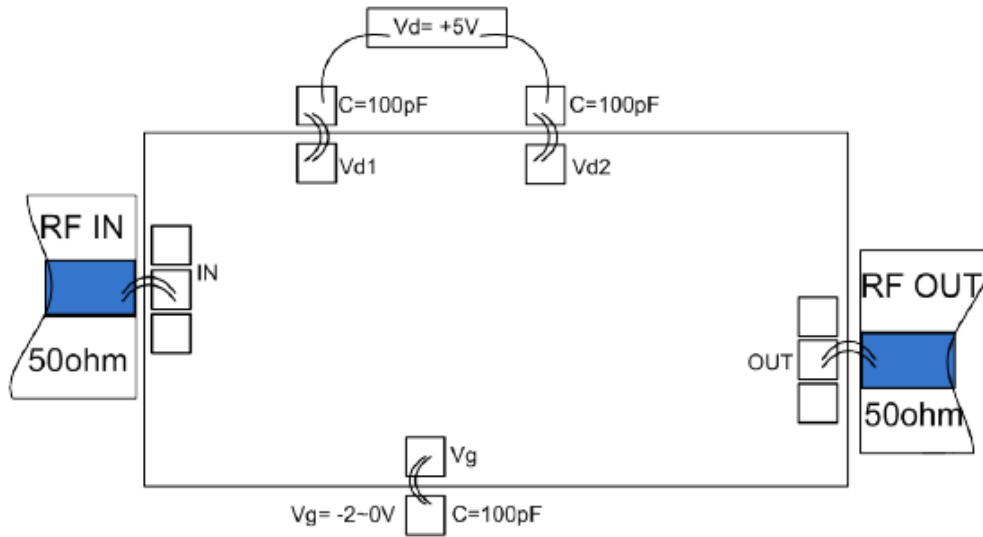


Pad Description

Pad	Function	Description	Equivalent Circuit
1	RF IN	RF signal input terminal; no blocking capacitor required.	
5	RF OUT	RF signal output terminal; no blocking capacitor required.	
7	Vg	Amplifier gate bias; external 100pF bypass capacitor required.	
8	Vd1	Amplifier drain bias; external 100pF bypass capacitor required.	
9	Vd2	Amplifier drain bias; external 100pF bypass capacitor required.	
2, 3, 4, 6	GND	Ground point for probe test.	
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: +20dBm
4. Operating temperature: -55°C to +85°C
5. Storage temperature: -65°C to +150°C