



Features

- Frequency: 4-20GHz
- Small Signal Gain: 25dB
- Gain Flatness: ± 0.75 dB
- Noise Figure: 3.8dB
- P1dB: 21dBm
- Psat: 22dBm
- Power Supply: 5V@150mA
- Input/Output: 50 Ω
- Die Size: 1.96 x 1.22 x 0.1 mm

Typical Applications

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

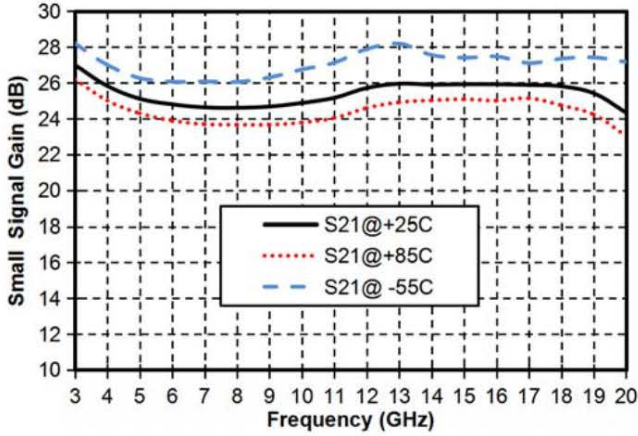
Electrical Specifications

TA = +25°C, Vd = +5V

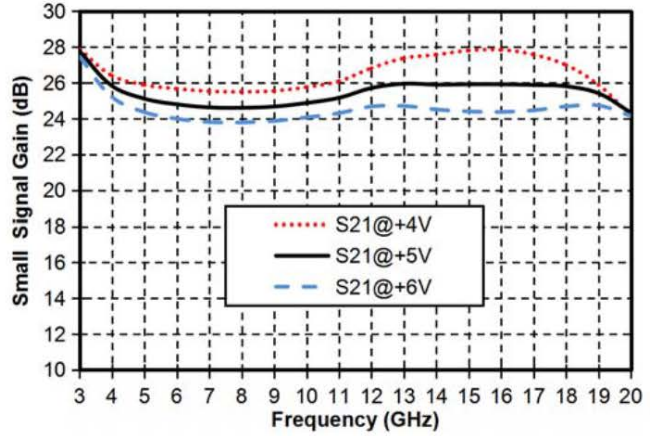
Parameters	Min.	Typ.	Max.	Units
Frequency		4-20		GHz
Small Signal Gain	24	25	25.5	dB
Gain Flatness		± 0.75		dB
Noise Figure		3.8		dB
Reverse Isolation		64		dB
P1dB		21		dBm
Psat		22		dBm
Input Return Loss	6	13		dB
Output Return Loss	11	16		dB
Quiescent Current		150		mA



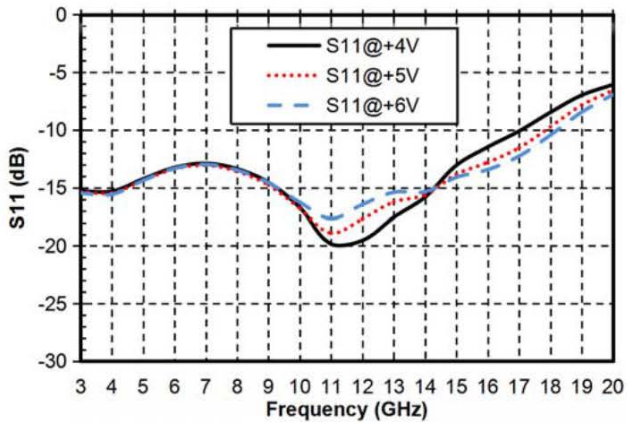
Gain vs. temperature @+5V



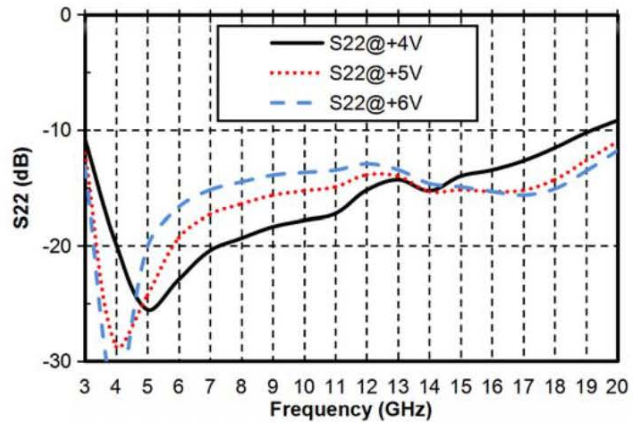
Gain vs. voltage



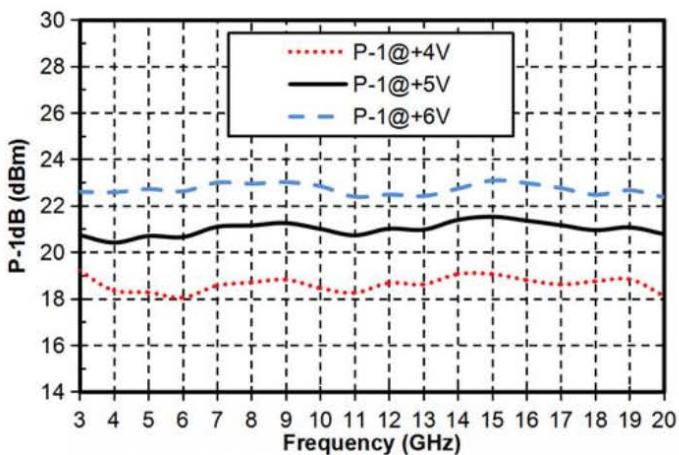
Input Return Loss vs. Frequency



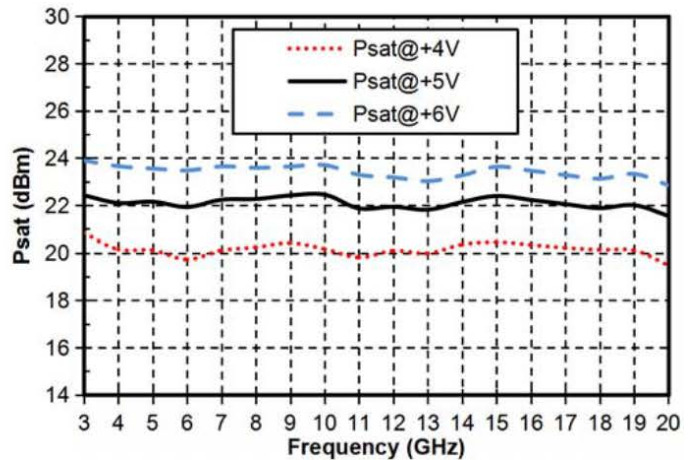
Output Return Loss vs. Frequency



P-1dB vs. Frequency

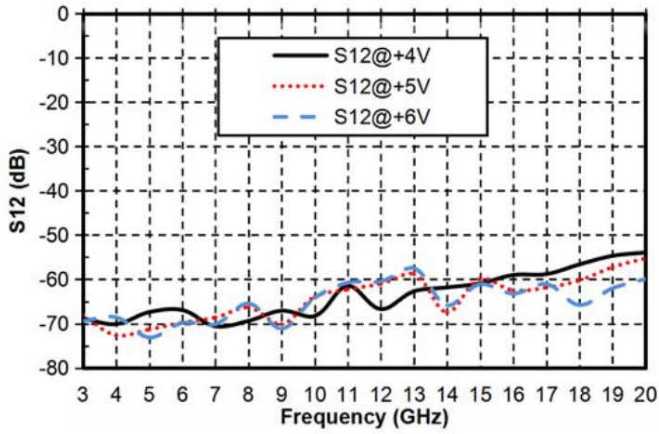


Psat vs. Frequency

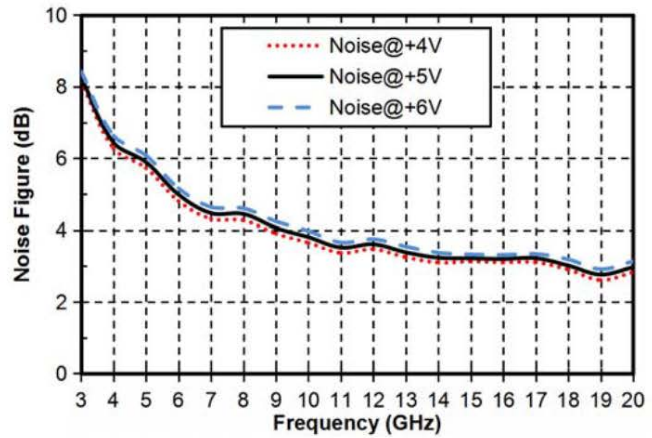




Reverse Isolation vs. Frequency



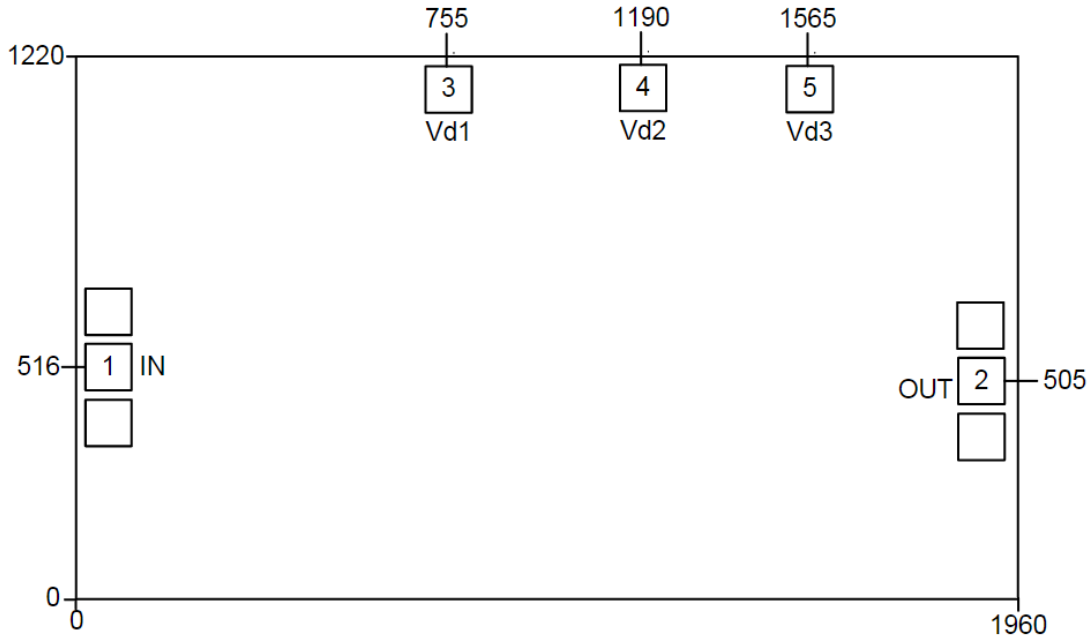
Noise vs. Frequency





Outline Drawing:

All Dimensions in μm

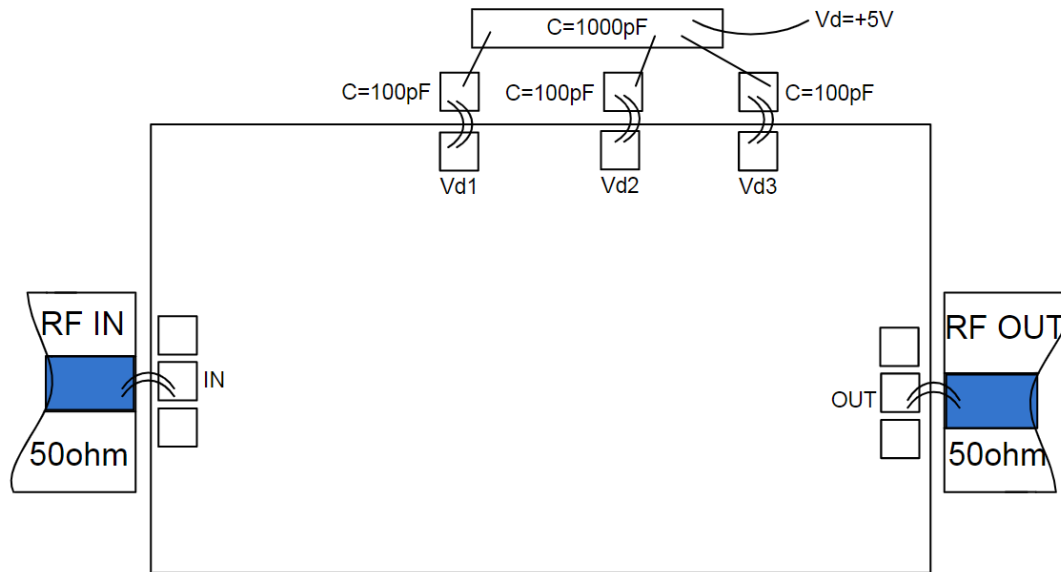


Pad Description

PAD	Function	Description
1	RF IN	RF signal input terminal, no blocking capacitor required
2	RF OUT	RF signal output terminal, no blocking capacitor required
3,4,5	Vd	Amplifier drain bias, connected to external 100pF, 1000pF bypass capacitor.
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: +8V
2. Maximum input power: +20dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C