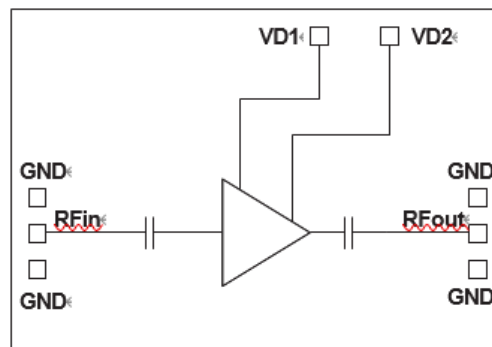


Features

- Frequency: 18-40GHz
- Gain: 23dB
- Noise Figure: 3dB
- P1dB: +15.5dBm
- Power supply: +5V @ 75mA
- Die Size: 1.9 x 0.85 mm

Functional Block Diagram

Typical Applications

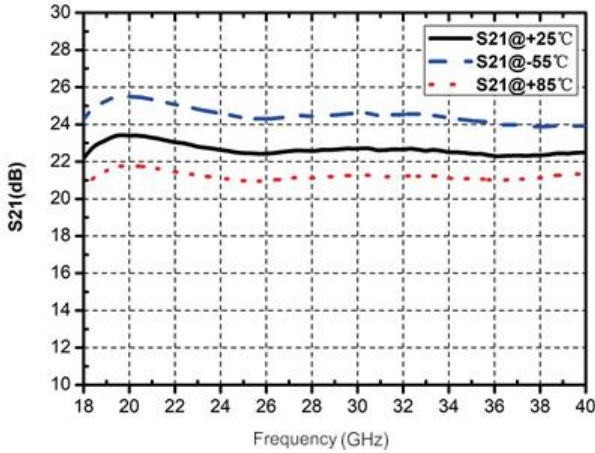
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications
TA = +25°C, Vdd = +5V (On-wafer Measurement Results)

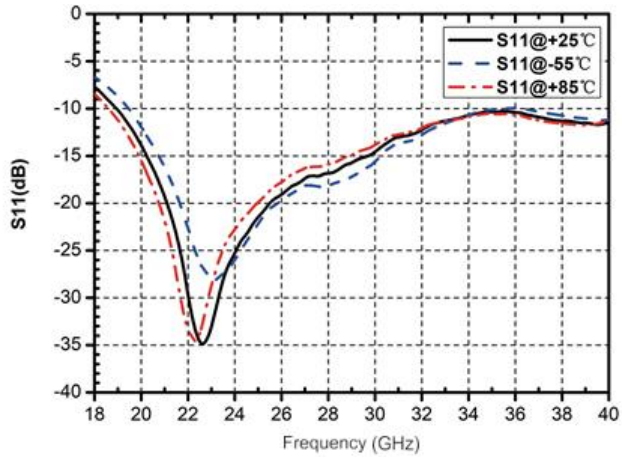
Parameters	Min.	Typ.	Max.	Units
Frequency	18-40			GHz
Gain		23		dB
Noise Figure		3		dB
Output 1dB Compression (P1dB)		15.5		dBm
Psat		18		dBm
Input Return Loss		15		dB
Output Return Loss		14		dB
Operating Current		75		mA



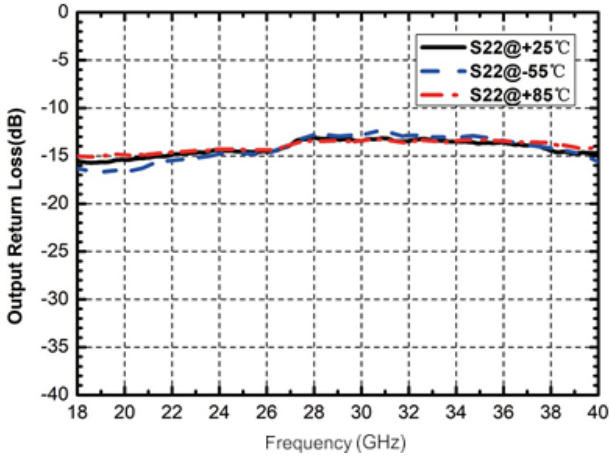
Gain vs. Frequency



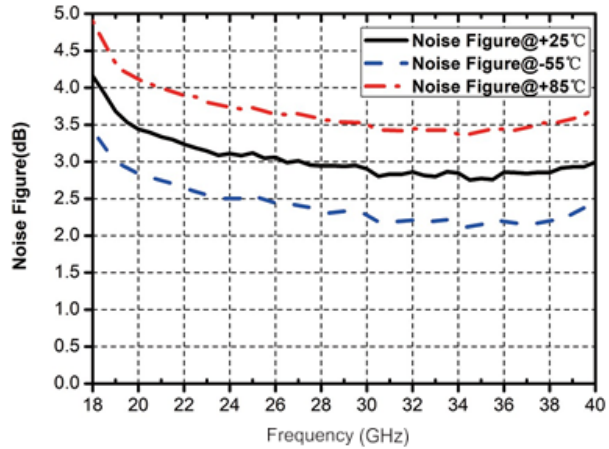
Input Return Loss vs. Frequency



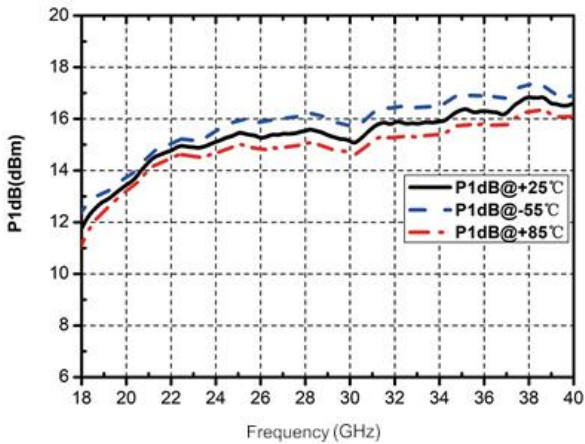
Output Return Loss vs. Frequency



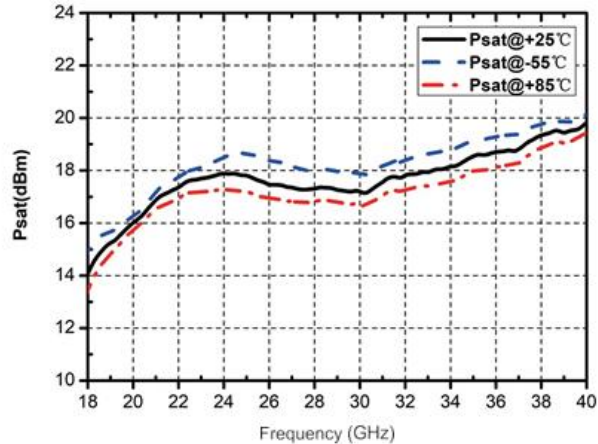
Noise Figure vs. Frequency



P1dB vs. Frequency



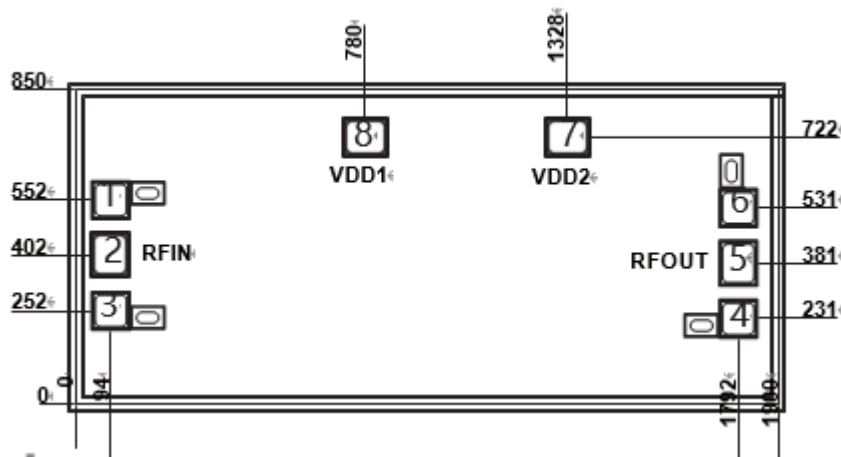
Psat vs. Frequency





Outline Drawing:

All Dimensions in μm

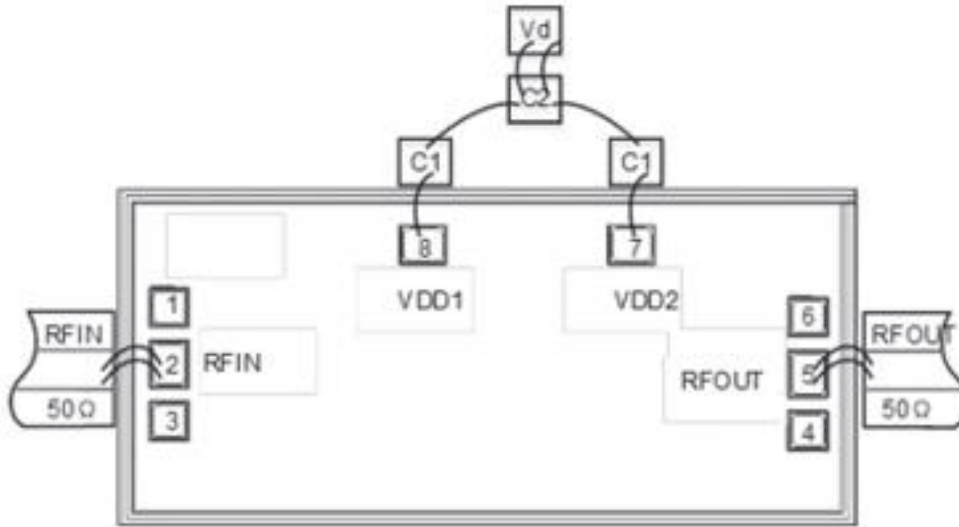


Pad Description

Pad	Function	Description
2	RF IN	RF signal input terminal, blocking capacitor required, matched to 50Ohm.
5	RF OUT	RF signal output terminal, blocking capacitor required, matched to 50Ohm.
7,8	VDD1/VDD2	Supply voltage
1,3,4,6	GND	Die bottom must be connected to RF/DC ground.



Assembly Drawing (Bond testing)



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 Vdd: +5.5V
2. Input power: +15dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C