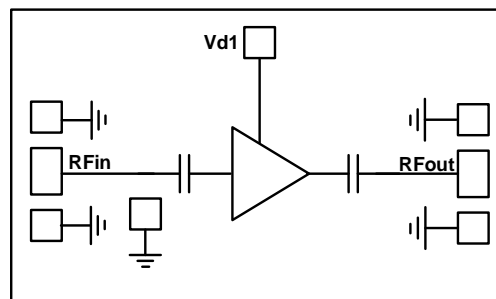


Features

- Single Biasing Voltage(Self Biased)
- Frequency: 2-4GHz
- Small Signal Gain: 31.5dB
- Noise Figure: 0.5dB
- P1dB: 14dBm
- Power supply: 30mA/5V
- Die Size:1.25 x 0.7 mm

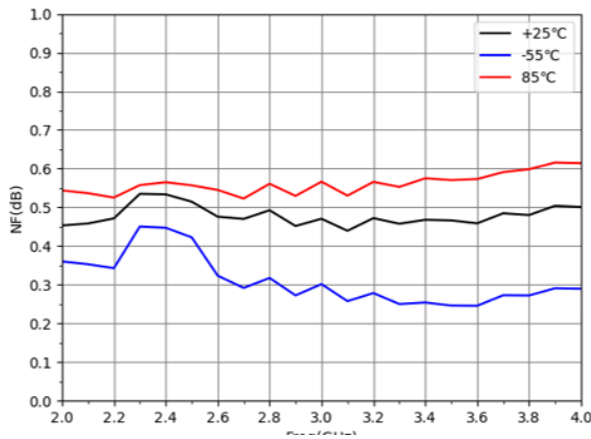
Typical Applications

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

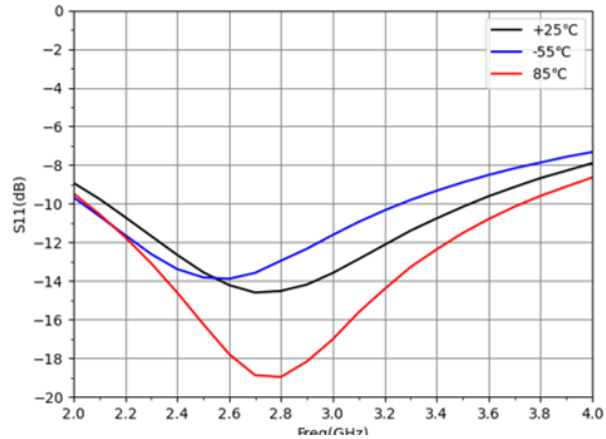
Functional Block Diagram

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

Parameters	Min.	Typ.	Max.	Units
Frequency		2-4		GHz
Small Signal Gain		31.5		dB
Noise Figure		0.5		dB
Output 1dB Compression (P1dB)		14		dBm
Input Return Loss		12		dB
Output Return Loss		7		dB
Reverse Isolation		36		dB
OIP3		26.5		dBm
Operating Current		30		mA
Operating Voltage		5		V

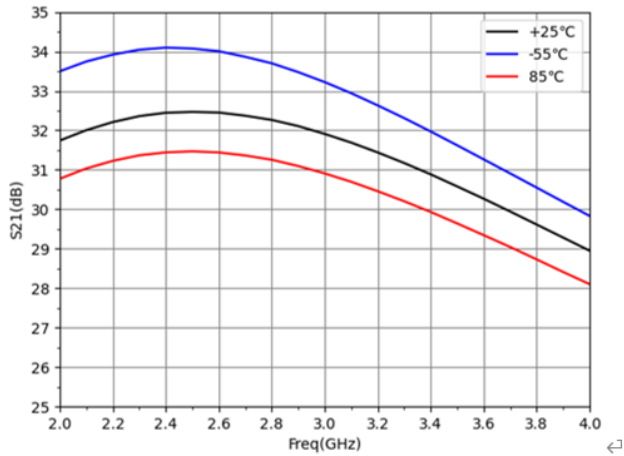
Noise Figure vs. Frequency



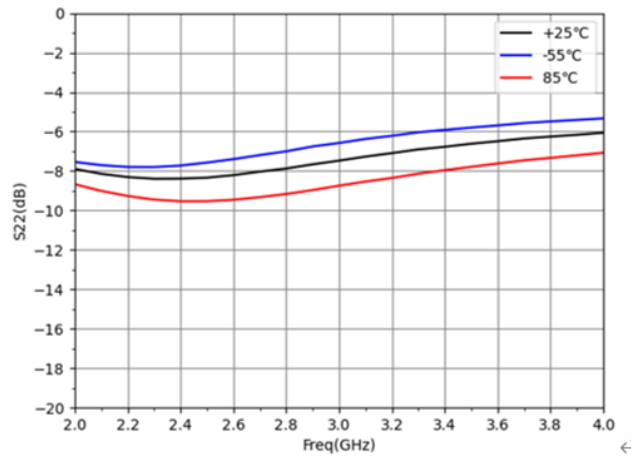
Input Return Loss vs. Frequency



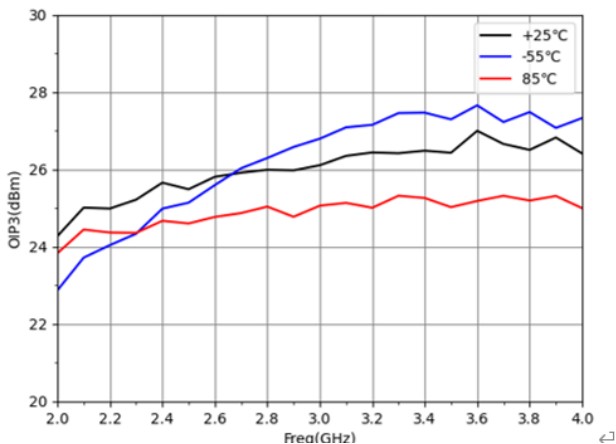
Gain vs. Frequency



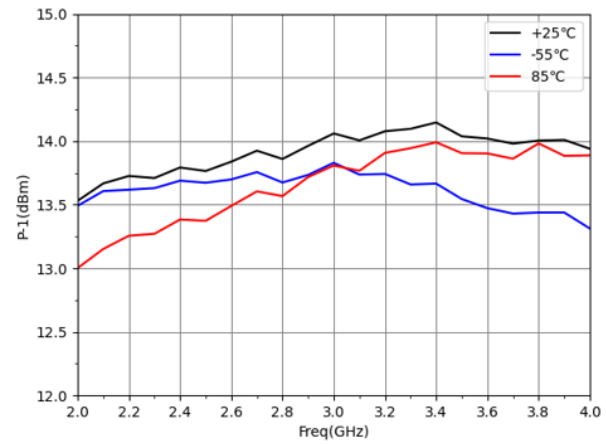
Output Return Loss vs. Frequency



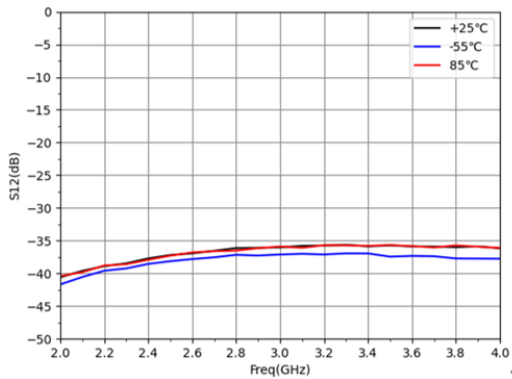
OIP3 vs. Frequency



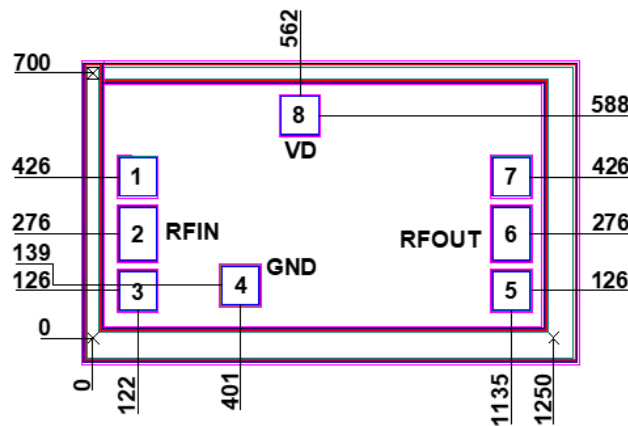
P1dB vs. Frequency



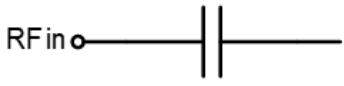
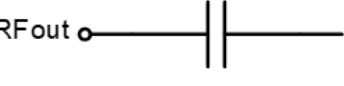
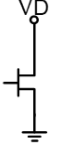

Reverse Isolation vs. Frequency



Outline Drawing:
All Dimensions in μm

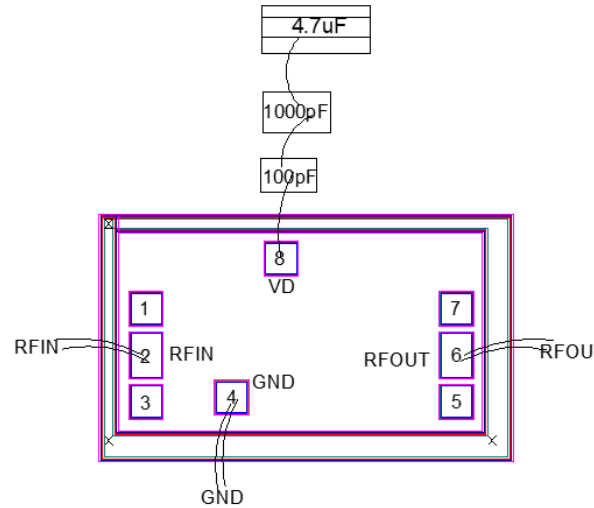


Pad Description

Pad	Function	Description	Pad Size (μm)	Equivalent Circuit
2	RF IN	RF signal input terminal, blocking capacitor required, matched to 50Ohm.	120 x 100	
6	RF OUT	RF signal output terminal, blocking capacitor required, matched to 50Ohm	120 x 100	
8	VD	Drain power supply.	100 x 100	
1,3,4,5,7	GND	Die bottom must be connected to RF/DC ground.	100 x 100	



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 Supply voltage: +5.5V
2. Operating temperature: -55°C to +85°C
3. Storage temperature: -65°C to +150°C