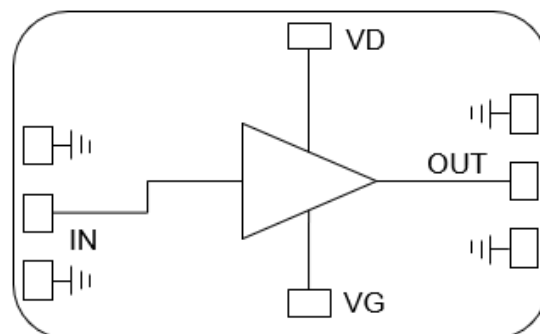


Features

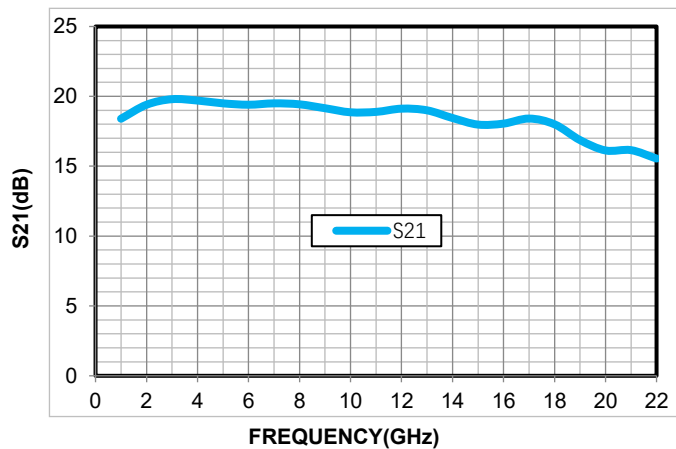
- Frequency: DC~20GHz
- Gain: 19dB typ.
- Noise Figure: 2dB typ.
- P1dB: 19dBm typ.
- IP3: 28dBm typ.
- Input /Output Return Loss:17dB/10dB
- Power Supply: +8 V@118 mA
- Die Size: 3.12 x 1.38 x 0.1 mm

Functional Block Diagram**Electrical Specifications**

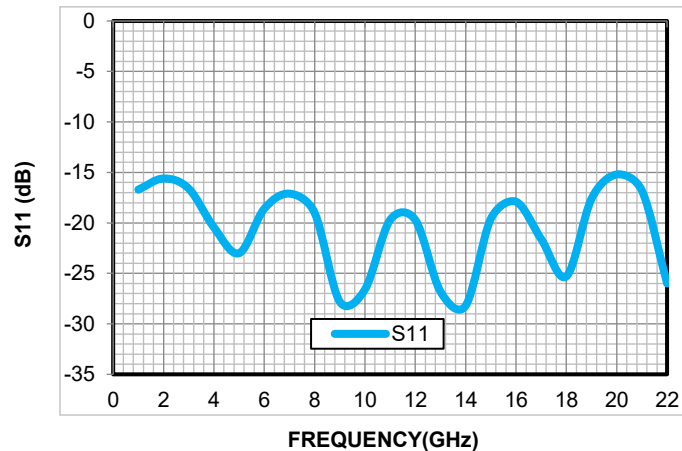
TA = +25°C, VD =+8V, VG=-0.25V, Idq=118mA

Parameters	Min.	Typ.	Max.	Units
Frequency	DC-20			GHz
Gain	16	19	20	dB
NF	1.4	2	3.6	dB
P1dB		19		dBm
Input RL		17		dB
Output RL		10		dB

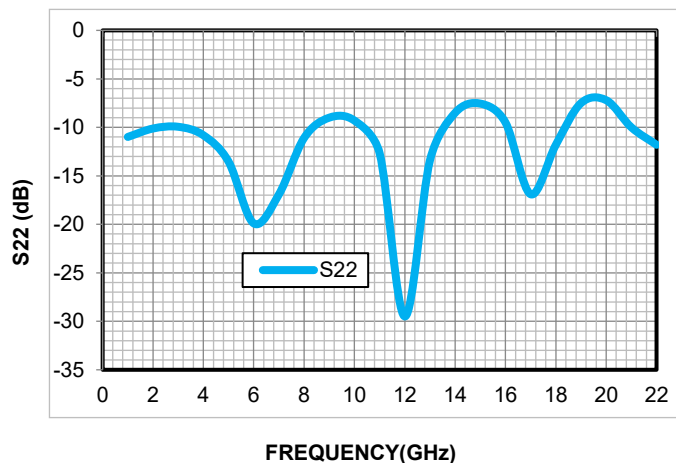
Gain vs. Frequency



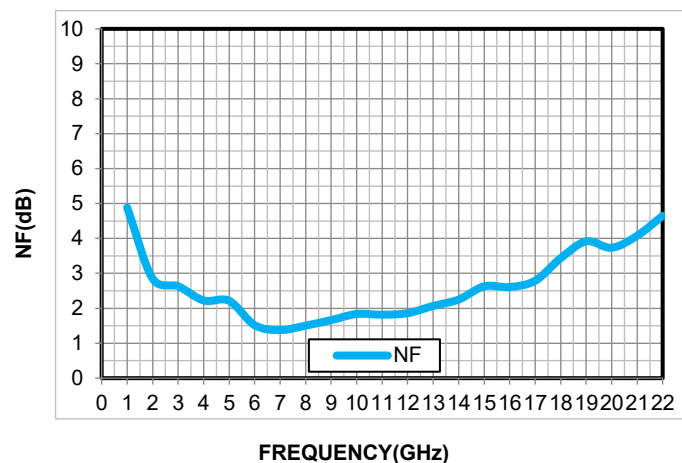
Input RL vs. Frequency



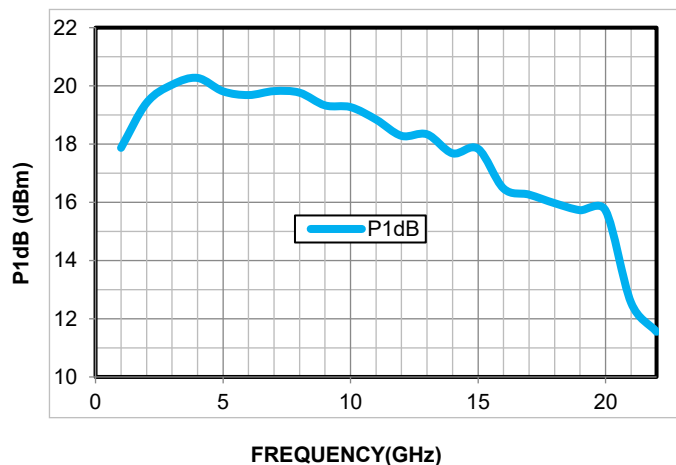
Output RL vs. Frequency



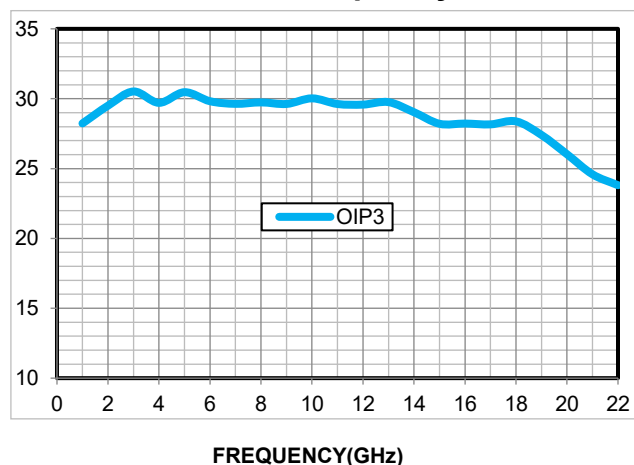
NF vs. Frequency



P1dB vs. Frequency

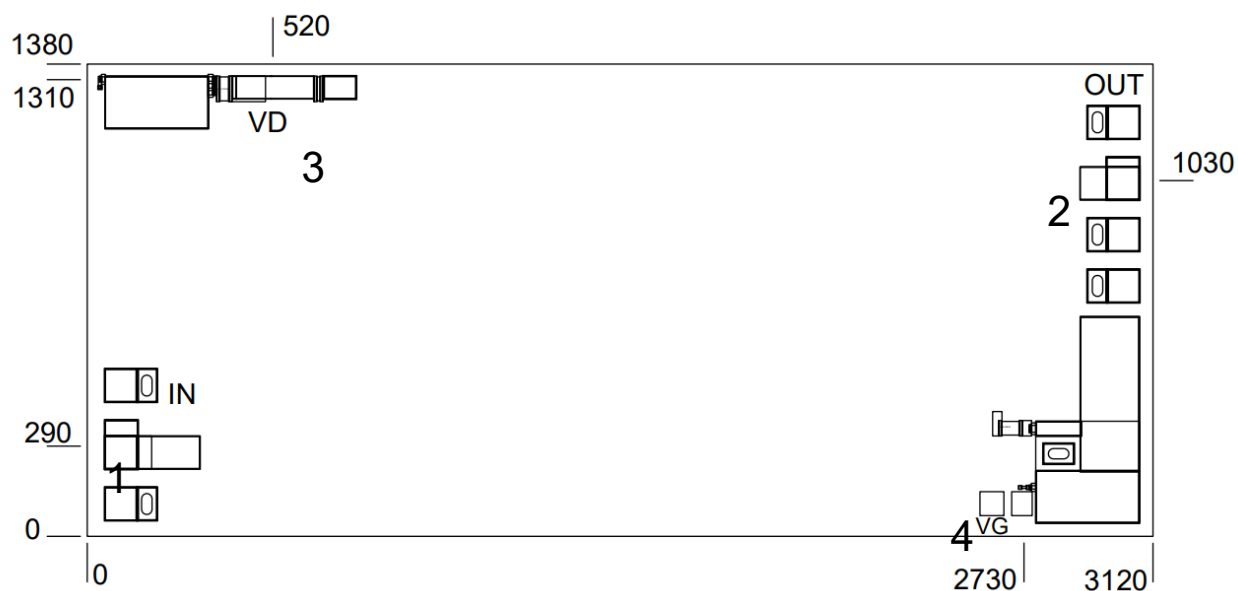


OIP3 vs. Frequency

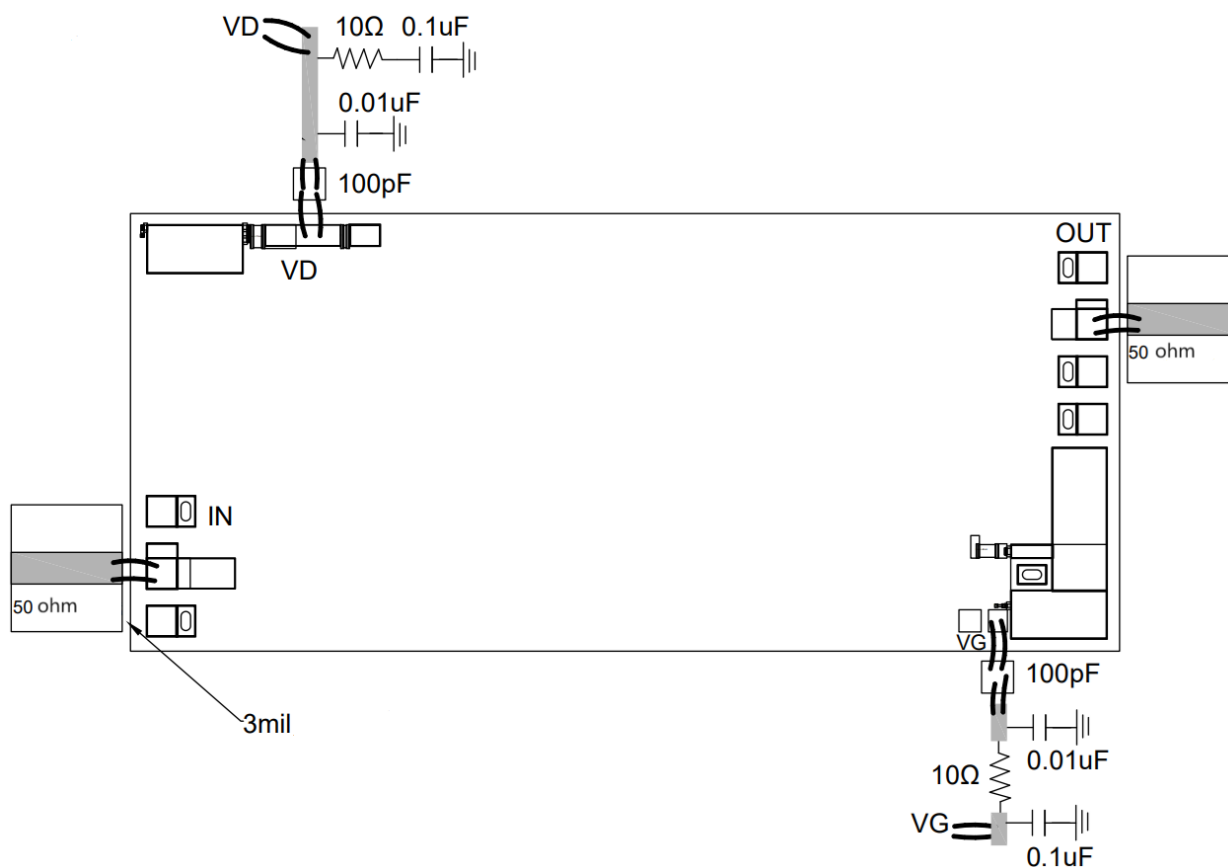


Outline Drawing:

All Dimensions in um



Pad	Function	Description
1,2	IN, OUT	50 ohm circuit matched, and there is no blocking capacitor integrated inside the chip
3	VD	Drain Bias
4	VG	Gate Bias
Bottom of chip	GND	The bottom of the chip should be in good contact with the RF and DC ground

Assembly DrawingNotes:

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
7. There is Internal DC Block at both input and output.
8. Input/Output use two 25um gold wire, length less than 250um is recommended.

Maximum Ratings:

1. Input power: +23dBm
2. Drain Bias voltage: +9V
2. Operating temperature: -55°C to +85°C
3. Storage temperature: -65°C to +150°C