

Features

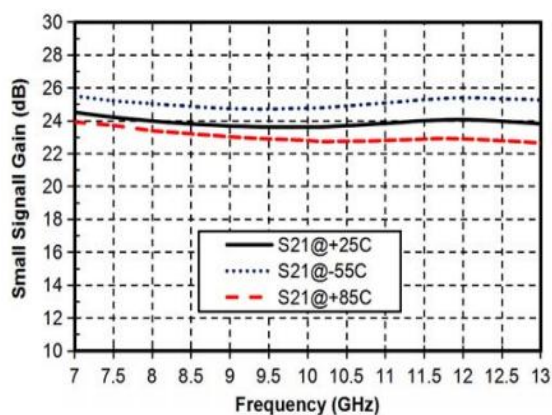
- Single Biasing Voltage(Self Biased)
- Frequency: 7-13GHz
- Small Signal Gain: 23.5dB
- Noise Figure: 0.6dB typ.(Vector net test)
- P1dB: 11.5dBm
- Power supply: +5V/40mA
- Input/Output: 50Ω
- Die Size: 1.41 x 0.95 x 0.1 mm

Electrical Specifications

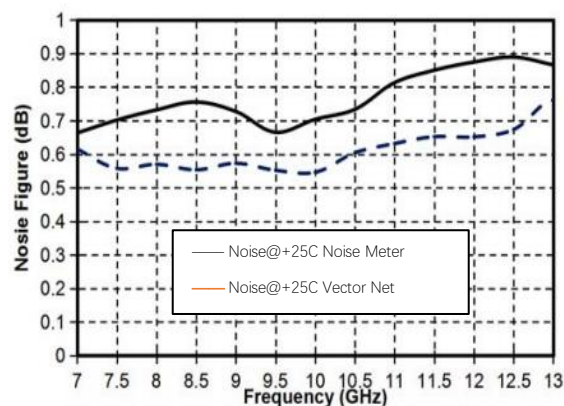
TA = +25°C, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency	7-13			GHz
Small Signal Gain	-	23.5	-	dB
Gain Flatness		±0.5		dB
Noise Figure (Vector Net)	-	0.6	-	dB
Noise Figure (Noise Meter)		0.8		dB
Output 1dB Compression (P1dB)	-	11.5	-	dBm
Psat		14.0		dBm
Input Return Loss	-	16	-	dB
Output Return Loss	-	12	-	dB
Static current		40		mA

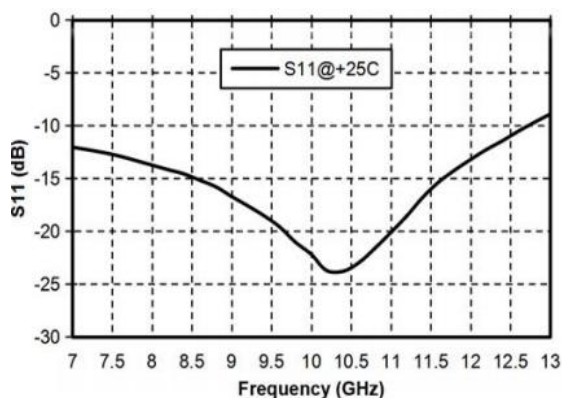
Gain vs. Frequency



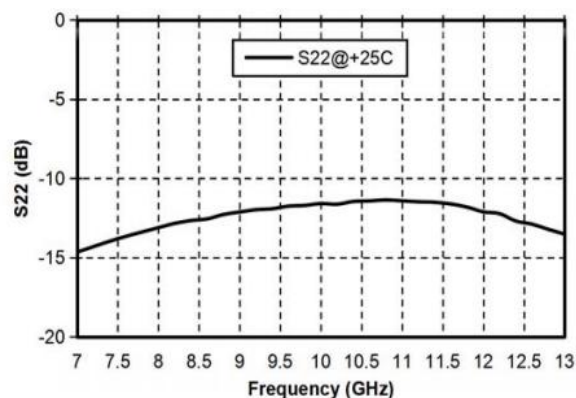
Noise Figure vs. Frequency



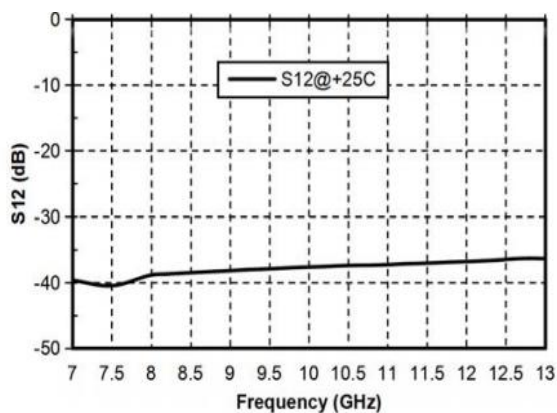
Input Return Loss vs. Frequency



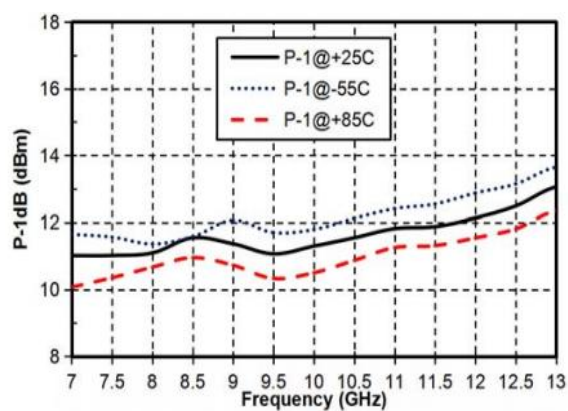
Output Return Loss vs. Frequency

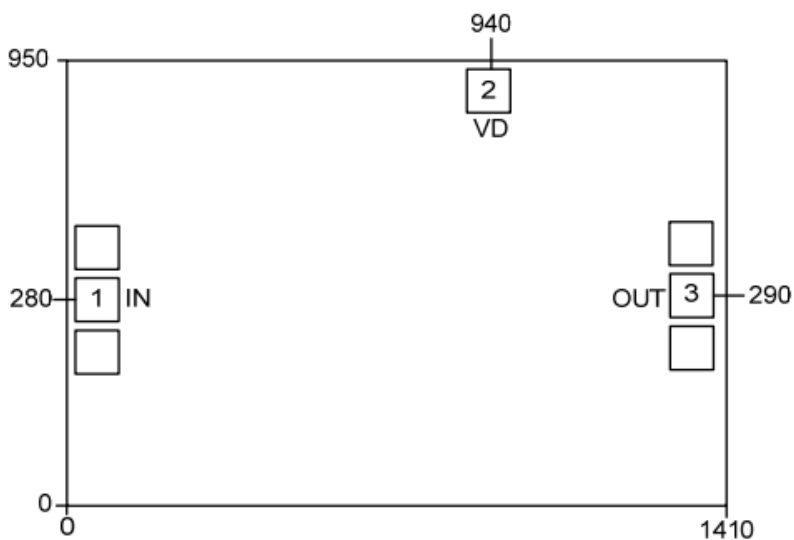


Reverse Isolation vs. Frequency

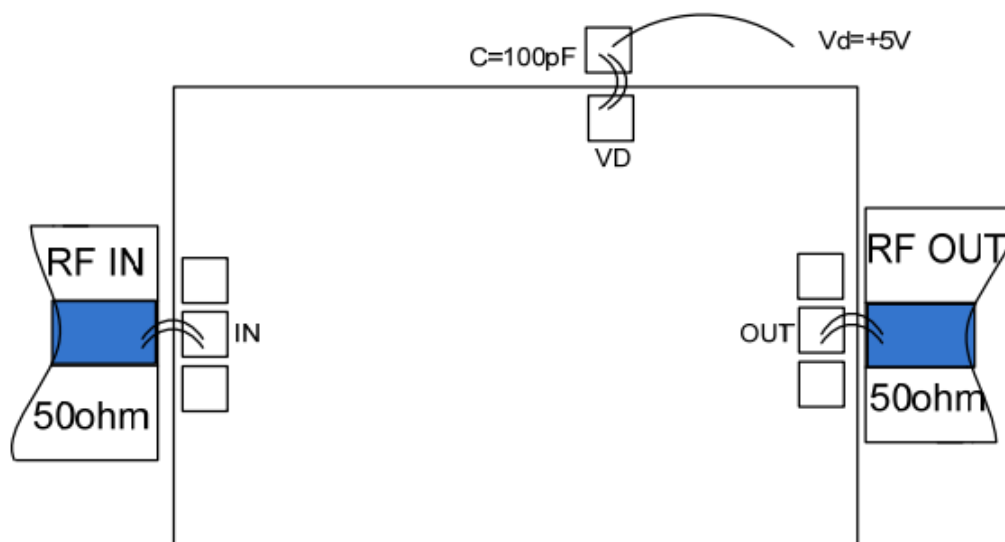


P1dB vs. Frequency



Outline Drawing:All Dimensions in μm **Pad Description**

Pad	Function	Description
1	RF IN	RF signal input terminal, no blocking capacitor required.
3	RF OUT	RF signal output terminal, no blocking capacitor required.
2	VDD	Amplifier drain bias; external 100pF bypass capacitor required.
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 input power: +20dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C