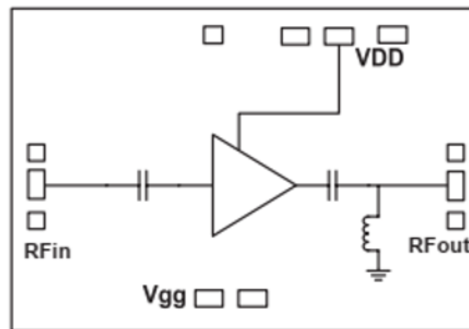
GaAs MMIC
Low Noise Amplifier
7-11GHz

Features

- Frequency: 7-11GHz
- Gain: 35dB
- Gain Flatness: 0.5dB
- Noise Figure: 0.8dB
- P1dB: +12dBm
- Power supply: 53mA@+5V
- I/O 50 Ohm matching: VSWR < 1.5

Functional Block Diagram



Typical Applications

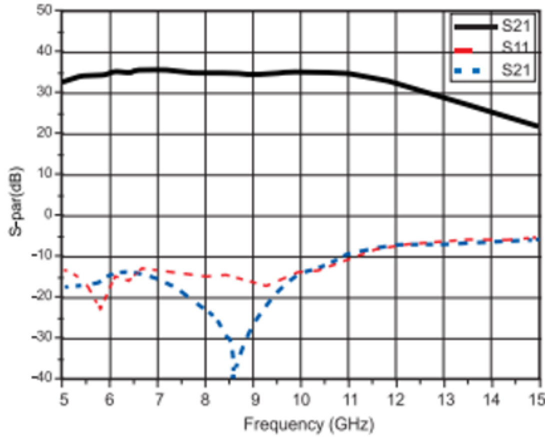
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

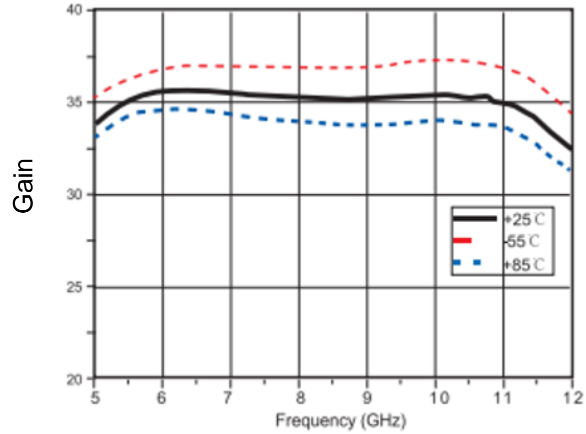
TA = +25ºC, Vd = +5V, Vgg = +0.6V (On-wafer Measurement Results)

Parameters	Min.	Typ.	Max.	Units
Frequency		7-11		GHz
Gain		35		dB
Noise Figure	0.75	0.8	0.9	dB
Output 1dB Compression (P1dB)	11	12	12.5	dBm
Input Standing Wave		1.5		dB
Output Standing Wave		1.5		dB
Operating Current (@Vdd = 5V)		53		mA

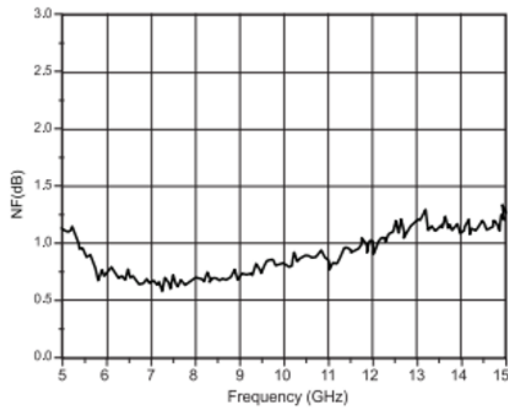
Frequency Response vs. Frequency



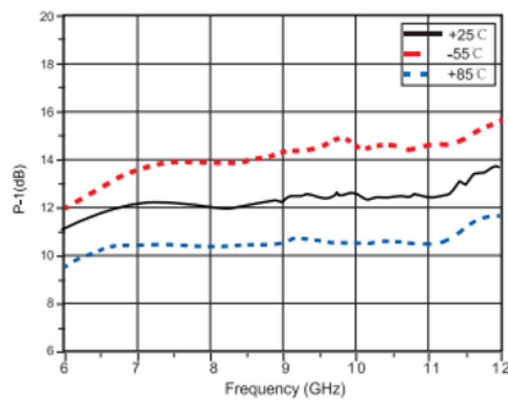
Gain vs. Frequency



Noise Figure vs. Frequency

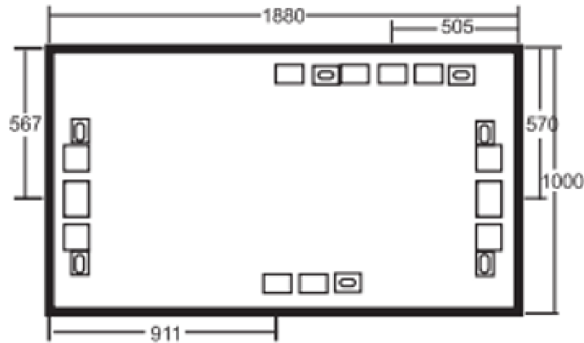


P1dB vs. Frequency

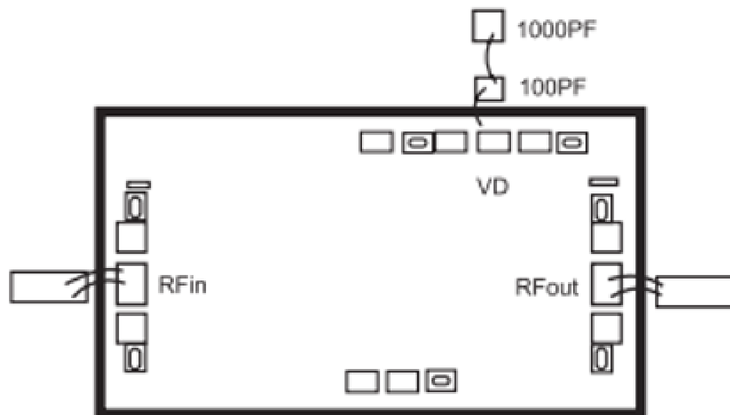


Outline Drawing:

All Dimensions in µm



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 drain voltage: +6V
2. Maximum input power: +15dBm
3. Thermal resistance: 229℃/W
4. Operating temperature: -55℃ to +85℃
5. Storage temperature: -65℃ to +150℃

MILLER MMIC LLC. www.millermmic.com

Sales: sales@millermmic.com