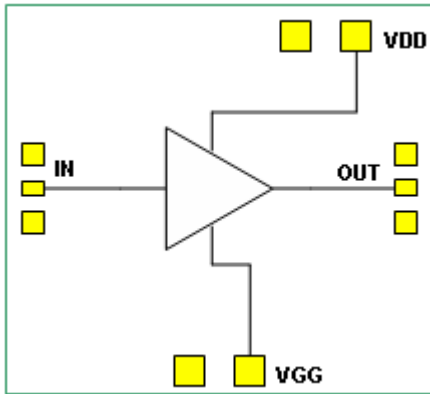


Functional Diagram



Features

- Broad Band LNA: 0.5 – 20 GHz
- Gain: 10 dB
- Noise Figure: 4 dB
- Size: 2.1 mm X 2 mm
- Current Consumption:
 - 18 mA @ Vdd = +2.8 V
 - 65 mA @ Vdd = +5.7 V

General Description

The chip is a GaAs MMIC Distributed Low Noise Amplifier which covers the frequency range of 0.5 to 20 GHz. The chip utilizes the UMS GaAs PHEMT process offering 10 dB gain, 4 dB Noise Figure with a bias supply of +2.8V @ 16 mA. The chip has a positive (Vdd) and a negative (Vgg) biasing voltages.

All data are from on-wafer measurements.

The chip is designed to be mounted with In/Out bond wires, so the NF on-wafer measurements are not the best obtainable from the chip; the typical NF expected is 3.5 dB.

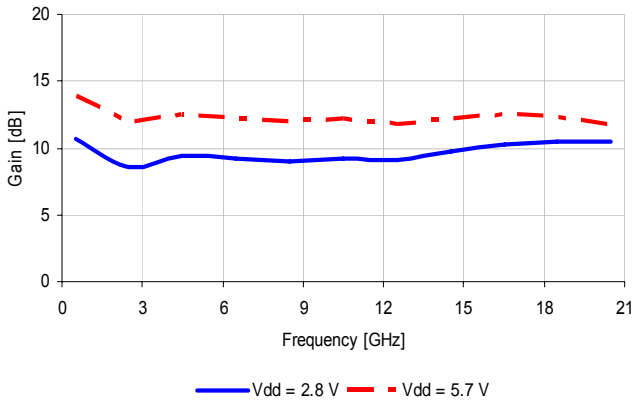
Electrical Specifications @ Vdd = 2.8 V

| <i>Parameter</i> | <i>Typ.</i> | <i>Unit</i> |
|----------------------------------|--------------------|-------------|
| Frequency Range | 0.5 - 20 | GHz |
| Gain | 10 | dB |
| Noise Figure | 4 | dB |
| Input Match | -12 | dB |
| Output Match | -12 | dB |
| Output Power at 1 dB Comp. Point | 13 (@ Vdd = 5.7 V) | dBm |
| Supply Current (Idd) | 18 | mA |

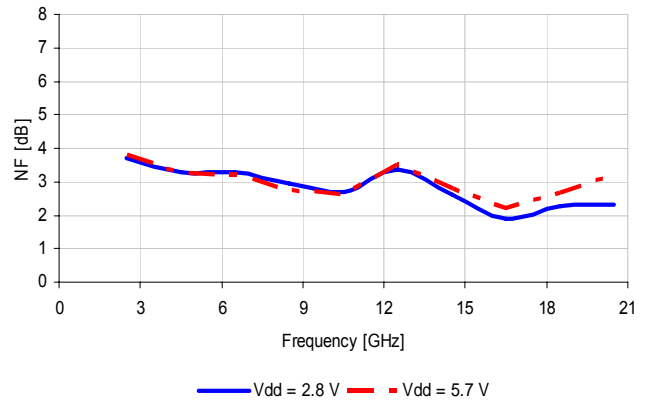
WAVLNW02

GaAs MMIC Broad Band Low Noise Amplifier, 0.5 – 20 GHz

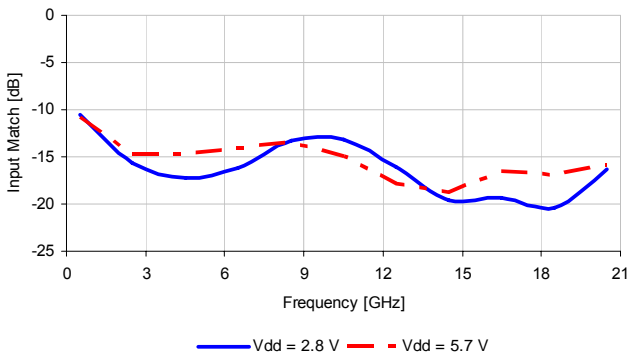
Gain



Noise Figure



Input Match



Output Match

