

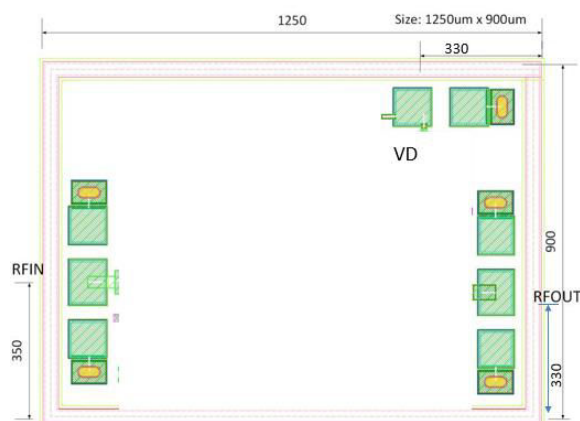
## General Description

MWL018 is a low noise amplifier designed and manufactured using GaAs technology. This low-noise amplifier requires a +3.3V supply, a normal operating current of 68mA, an operating frequency covering 6GHz to 18GHz, a small signal gain of 25dB, a typical noise figure of 1.3dB, and an output 1dB compression point of +16dBm.

## Features

Noise Figure: 1.3dB  
 Gain: 20dB;  
 Output P1dB: +16dBm  
 Supply Current: 68mA@+3.3V  
 Chip Size: 1250\*900um

## Functional Diagram (Typical bond: 100x100um)



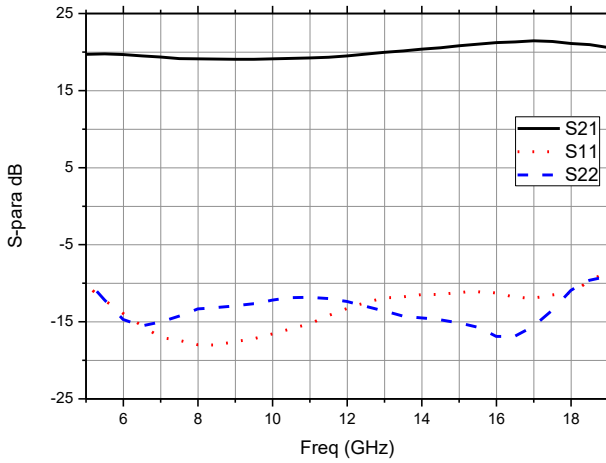
(Die Thickness: 100 um)

## Electrical Specifications, $T_A = +25\text{ }^\circ\text{C}$ , $V_{dd} = +3.3\text{V}$

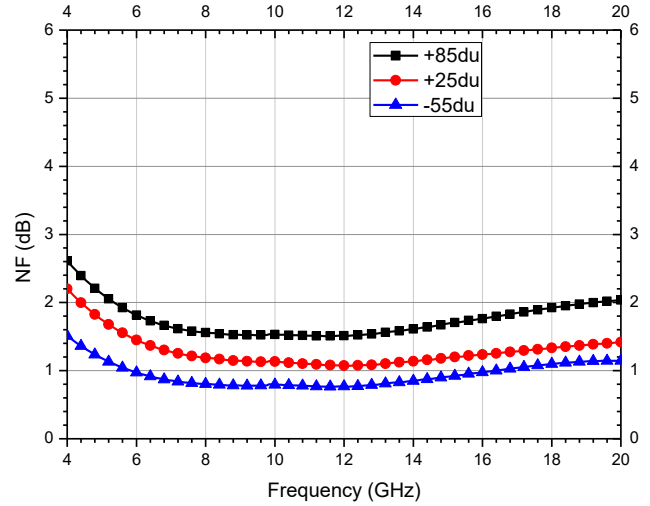
| Parameter                        | Min | Typ | Max | Units |
|----------------------------------|-----|-----|-----|-------|
| Bandwidth                        | 6   |     | 18  | GHz   |
| Gain                             |     | 20  |     | dB    |
| Noise Figure                     |     | 1.3 |     | dB    |
| Input Return Loss                |     | 10  |     | dB    |
| Output Return Loss               |     | 12  |     | dB    |
| Output Power for 1dB Compression |     | 16  |     | dBm   |
| Supply Current (@Vdd=5V)         |     | 68  |     | mA    |

## Test Result

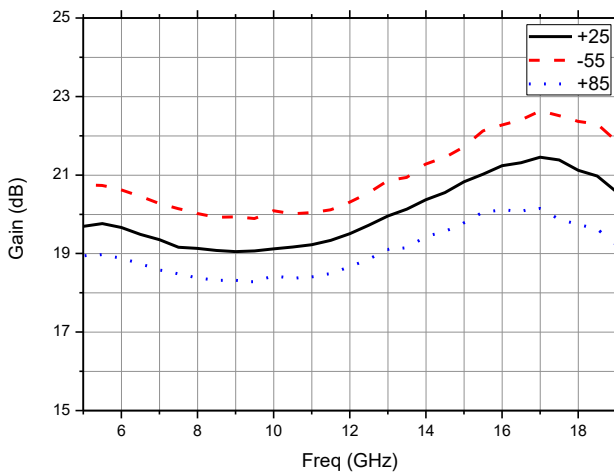
### S\_Parameter



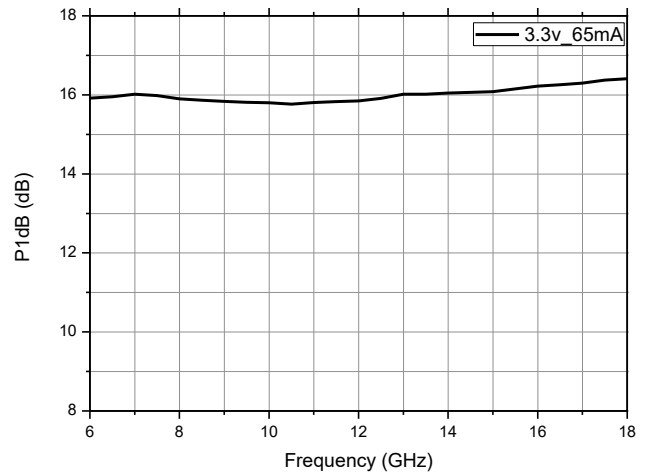
### Noise Figure



### Gain



### P1dB



## Assembly Diagram

