

ABSTRACT

Maximum power gain and minimum noise of amplifier is very important on electronic receiver system. At simple design, maximum power gain and minimum noise, generally can't achieve at the same time.

In this final project, Low Noise Amplifier (LNA) at 2.4-2.484 GHz with minimum noise figure and produce enough gain for one stage amplifier was designed and realized. This LNA was designed and realized by BFR92 transistor and microstrip line as matching impedance.

To know performance of the LNA , some test by comparing the result of measurement with its specification have been done. The examination is done by measuring the LNA parameters like frequency region, noise figure, gain, voltage standing wave ratio (VSWR) and characteristic impedance.

From result of examination, this LNA active at 2.4-2.418 MHz with gain 10,184 dB and Noise Figure 2 dB. This result have a similiar of design that is at 2.4-2.484 GHz with minimum gain 10 dB and BW=84 MHz