ABSTRACT

Nowadays, technological developments in this modern era of increasingly sophisticated with the advent of various wireless technologies that greatly simplify each individual in its activities. The antenna is one of component the wireless systems that now widely used in life. Microstrip antenna has many advantages, such as small size, lightweight, and can be integrated directly.

In this final project will design and realization of an array microstrip antenna with rectangular-shaped patch that works in frequency center 2.65 GHz, the frequency range 2.6 - 2.7 GHz with achievement gain ≥7 dBi and the bandwidth to 100 MHz.

From the results of simulation tests, using the software CST, Obtained VSWR ≤ 2 and about 8.6 dBi Gain. While the results of measurements of the antenna VSWR ≤ 2 the results obtained with a bandwidth of 100 MHz and 11.88 dBi Gain. The form of unidirectional radiation pattern obtained when the simulation and measurement. While polarization measurements obtained from circular shape. With the design frequency, bandwidth, and Gain, this antenna can be used as a receiver antenna on LTE technology.

Keywords: Array, Antenna, Microstrip.