

ABSTRACT

Antenna has an important role in the telecommunications system. Antenna is a transformer or a structural transition from wave to wave guided into free space or vice versa. There are various types of antennas, one of which is the microstrip antenna, and methods of manufacture of any one of many kinds are stacked method.

The final project is to design and realize a square microstrip antenna for receiving application of GPS (Global Positioning System) which works in the frequency of 1575.42 MHz and 1.227.60 MHz. This antenna using stacked to increase gain and using coaxial feed. Once the design and realize has been done, the next step is measurement.

Based on the results of measurements, antennas are arranged in stacked form a dual band response. VSWR is obtained there are not as expected. Gain obtained for the antenna before stacked 2.39 dBi at 1575 MHz, 2.24 dBi at 1227 MHz, and antenna stacked 4.07 dBi at 1575 MHz, 3.34 dBi at 1227 MHz, proving that the method can raise the gain. The antenna has a circular polarization and omnidirectional radiation pattern.

Keywords: antenna stacked, coaxial feeds, GPS