

ABSTRACT

Dual band antennas are alternative antennas that can be used for radio systems that work on two different frequency channels. When two frequencies work separately, a double gap patch structure can be designed to avoid the use of separate antennas. Antenna antennas are one antenna solution that can be developed. because it has a simple and easy installation form.

In this final project designed of FR4 substrate microstrip antenna by adding twin slots on the antenna with frequency of 2.4 GHz and 5.8 GHz. The method used in this final project includes designing, modeling antennas to find the desired results, measuring antenna parameters, and analyzing measurement results. These parameters include bandwidth, Voltage Standing Wave Ratio (VSWR), Return Loss, Polarization, Directivity, Strengthening (Gain) and large antenna range.

The antenna simulation process uses 2018 CST software. The antenna evaluation results show that the antenna works at a frequency of 2.3628-2.44 GHz and 5.7122-5.8753 GHz. Has VSWR ≤ 2 , has an elliptical radiation pattern in the direction and polarization.

Keywords: Microstrip, Rectangular, twin Slot, dual band