

ABSTRACT

A microstrip antenna is a conductor antenna that attaches to a groundplane and is separated by a dielectric material. Microstrip antenna is one of the popular antennas this is because microstrip antennas are very suitable for telecommunications devices that pay attention to shape and size, besides that microstrip antennas are also easy in terms of installation and low cost, but microstrip antennas have a low gain by using parasitic substrates are expected to add gain and radiance to the performance of microstrip antennas. Parasitic substrate is the addition of substrates that are placed above the main antenna at a certain distance.

Antennas designed using a rectangular shape of 5.52 GHz frequency were selected to get the full performance potential of 802.11n and using parasitic substrates is expected to get better gain, reduce the overall dimensions of the antenna and better antenna performance.

The result of this final project is a microstrip antenna with a rectangular parasitic substrate that is added to the parasitic substrate to produce gain gain according to the antenna designed and implemented. Rectangular patch antenna with an s-parameter value of -24.24 and gain gain at a frequency of 5.52 GHz which is 3.34 dBi.

Keywords : *microstrip, parasitic, wifi.*