

ABSTRACT

Indonesia is a maritime country. So there are many ships pass away in the Indonesia's sea. It is necessary to supervise the holding of securities and defenses in this marine area. Supervision of marine areas in Indonesia can be monitored by using radar supervisor coast, where the radar is mounted along the coast line. It can cover larger Indonesia marine area. Radar could act as 'eyes' that can 'see' objects in the distance. Information of an object distance of Radar position and speed of the object can be obtained from the Radar.

Manufacture of radar is also in the underlying demand for X-band radar is too much, so it started to switch to S-band, and it is give lower cost. At the Final Project be entitled Design and Realization of 4 rectangular patch array microstrip antennas at 2,97 to 3,03 GHz's Frequencies for Coastal Surveillance Radar Application. Microstrip antennas work on S-band frequency ($f_c = 2.97$ to 3.03 GHz) with VSWR at frequencies $2.97 = 1.14$, at frequencies $3 = 1.103$, at frequencies $3.03 = 1.086$ and gain 10.41 dbi, with the desired bandwidth of the specification is 60 MHz, have a radiation pattern Unidirectional and elips polarization that expected give best performance to support in a variety of radar applications.

Key words: *microstrip antenna, Coastal Surveillance Radar Application, the frequency of S-Band*