

ABSTRACT

Microstrip antenna has been developed as a light mass and can adjust the shape of the place is laid. Method of rationing on the antenna can be divided into three, namely microstrip rationing, rationing probe, and rationing EMC (electromagnetically coupled). EMC method was first proposed by KF Lee, which is designed to produce a wide bandwidth.

In this final project made triangular antenna operating at a frequency of 2.4 GHz to support teknologiwifi. The study also developed a method for rationing rationing method microstrip antenna is electromagnetically coupled (EMC) with a triangular patch form array method. By using EMC unwanted radiation become less and has the advantage of offering wideband characteristics without a matching circuit. EMC rationing method can overcome the drawbacks of conventional microstrip antenna has a narrow bandwidth characteristics. The microstrip antenna design using EMC method with L-strip feeder structure. This antenna is designed and then simulated using software simulation simulator. Pada, repetition antenna dimensions to obtain results that are in accordance with the design specifications of the antenna by changing the dimention of antenna. Simulation results obtained, implemented using materials, namely copper.

In this final project has successfully created a triangular array antenna EMC rationing which has 13 dBi gain, 100MHz bandwidth at $VSWR \leq 1.5$ with working frequency of 2.4 GHz. This antenna is designed with EMC to get bandwidth wide enough.

KeyWords: *wifi, emc, triangular, dan feeder*