

ABSTRACT

Telecommunication technology is currently experiencing development. This is also supported by the development of antennas that can meet technological needs. One of them is the WLAN communication system. The WLAN is an area local network, where this communication system no longer uses cables but uses radio waves as a medium for data transmission. One type of antenna used to access a Wireless Local Area Network (WLAN) is a microstrip antenna. In this final project designed a microstrip antenna consisting of a single rectangular-triangular patch element which is modified into a 1x2 element array, modification of a single element into a 1x2 element array which aims to increase the gain value of an antenna operating at a working frequency of 2.4 GHz. which is simulated using the AWR Microwave Office 2009 software using the FR4-Epoxy substrate type, with $\epsilon_r = 4.3$ and the substrate thickness (h) = 1.6 mm and the thickness of the conductor (t) = 0.0265 mm. The results of this antenna simulation have a return loss value of -34.44 dB and a VSWR of 1.039, and have a gain value of 8.257 dB.

Keywords: *Microstrip Antenna, Rectangular, Triangular, Array*