

ABSTRACT

Technological developments are currently increasing rapidly, so that the number of information needs that must be achieved is increasing. With this there must be technology that can support it. More information needs mean there must be access to fulfillment everywhere. Antenna is a device that has a very important position in wireless communication where this antenna generally functions as a directional device. One way to fulfill this demand is by implementing MIMO (multiple input multiple output) technology. MIMO is a communication system using multiple antennas (many antennas) on the transmitter and receiver side. Where the information sent can be sent and received from several antennas simultaneously. MIMO antennas are used because they are more useful and can save space on the system, many multi-band antennas are now used. In this research a 2x2 MIMO microstrip antenna will be designed at a frequency of 3.5 Ghz using CST Studio software. In this final project results with a return loss of -16.895 dB, a bandwidth of 118.7 MHz, a VSWR of 1.3337 , and a gain of 1.1111 dBi on the iteration and simulation results.

Keywords: MIMO (Multiple Input Multiple Output), 3.5GHz, CST Studio Suite