

ABSTRACT

The microstrip antenna is a metal conductor antenna attached to the groundplane between which there is a dielectric material. With a simple form but specifications that are not inferior to other types of antennas, microstrip antennas are in great demand. This study discusses the design of a triangular microstrip antenna with a proximity coupled feeding technique for the network and can reduce the dimensions of the antenna so as to make the bandwidth wide with a sharp return loss. This technique can also increase the gain and bandwidth of the antenna. The purpose of this research is to design a Triangular microstrip antenna with a proximity coupled feeding technique that can work on a network at a frequency of 2.4 GHz. which aims to reduce the dimensions of the antenna so that it has a wide bandwidth, and increase the gain and analyze the working principle of Triangular microstrip antennas with proximity coupled feeding techniques. The research methodology is literature study, Antenna Design, Antenna Simulation, testing of measurement tools and analysis. Based on the test and analysis data, it is obtained that the resonance frequency = 2.4 GHz, return loss = -15.82 dB, polarization is omnidirectional, Bandwidth = 143 Mhz, where frequency = 2.400 MHz, VSWR = 8.63, and Gain of 2.1446 dB on iteration and simulation results. The increase in return loss, VSWR, and bandwidth by iteration is also used for the design of proximity coupled microstrip antennas in order to obtain more optimal results. Increased Return Loss = 46% VSWR = 90.3%, And Bandwidth = 5.97, %. This happens because of changes in antenna parameters..

Keywords- Triangular Microstrip Antenna Frequency 2.4 Ghz.