

ABSTRACT

Along with the development of an increasingly advanced era, technology has a very important role in everyday life, so technology is needed that is fast, easy, can be done anywhere and anytime. Therefore, we need a tool to overcome these problems. One of the tools used is a microstrip antenna because this type can widen a narrow bandwidth and can increase the gain value. In this research, a 2X1 microstrip array antenna will be designed at a frequency of 2.1 Ghz using Inset Feed Feeding Techniques for LTE Applications. The method used in this research is the array method because it can increase the gain and widen the narrow bandwidth value. The software used is AWR Microwave Office 2009 software. The design parameters that must be achieved are VSWR 2, return loss -10 dB, gain 10 dB and bandwidth 75 MHz. And can produce unidirectional radiation patterns. The results of the simulation of the rectangular array microstrip antenna design obtained a return loss value of -21.75, a gain value of 8.046, a VSWR value of 1.177, a bandwidth value of 153 and produces a unidirectional radiation pattern.

Keywords: Microstrip Antenna, Array, LTE