

ABSTRACT

Current and future weather conditions as well as extreme weather conditions that can cause disasters, it is necessary a technology that can know the state of fast and precise weather by using tools that can help humans to detect natural phenomena predict the state of the weather. Equipment used to detect natural phenomena to predict the weather using radio waves or better known as radar. Weather radar is a tool used to detect weather conditions.

In this final project to create a weather radar antenna which in the antenna radar block diagram is a much needed part in a radar system on a radar system, the antenna is a very crucial component because it can determine the work of the whole radar system. In the final project, a final project has been done in the form of a radar surveillance antenna that operates at a frequency of 2.9GHz-3.1GHz and a journal that creates a microstrip antenna on a KU Band frequency with a two-polarization concept whereas in the final project it uses only 1 polarization and Frequency of C-Band.

In the final project entitled Design and Realization of Weather Radar Antenna at Frequency 5.5 Ghz-5.7 Ghz, the resulting antenna is a microstrip antenna that has an 8x1 patch arrangement working on a 5 Ghz (5.5-5.7) GHz C-Band frequency that has Elliptical polarization and directional polarization, VSWR 1.055, Bandwidth 200 MHz, return loss -31.444dB and the material used for the manufacture of this antenna is FR4 where the use of C-Band frequency to detect the weather at close range

Keywords: Weather Radar, Microstrip Antenna, Rectangular Patch