

ABSTRACT

High rainfall levels that could pose a negative impact if not be solved quickly and precisely, so need a technology that can tell the State of the weather by using a tool that can detect and predict if the rainfall occurs. The instrument used was a weather radar.

On this research created a Weather Radar antenna where *patch* these designed L-shaped frequency X band at 9,4 GHz, which previous research has already designed antenna mikrostrip on frekuensi X-band with linear arrangement. While in the study designed the X-band frequency antenna so that the obtained resolution is better, can detect particles which are smaller, higher sensitifitasnya, where the X band frequencies are much closer on target.

In this study using the method of impedance matching, *array* and *slot* so that it brings about the desired specifications. In the design of this antenna is substrate materials used FR-4 epoxy with constanta elektrik 4.4. Where, the results of the parameters – parameters of the antenna, including the following: has a VSWR ≤ 2 , *return loss* ≤ -10 dB, the *gain* ≥ 10 dBi, *Bandwidth* ≥ 60 MHz, Radiation Pattern Unidirectional.

Keywords: Antennas Microstrip, Weather Radar, X-band, *Array*