ABSTRACT

Nowadays, rare animals are increasing every day. To preserve animals, especially protected animals, animal breeding is needed. This animal breeding is needed to obtain data on the number of animals physically and administratively. After the animals that have been bred will be released into the wild. Animals that have been released will be difficult to detect and locate. To find the location of wildlife, animal tracking devices are needed.

This animal tracking device can be made by attaching a transmitter to the animal's body. This transmitter device will transmit a signal that will be received by the receiver and signal processing will be carried out to determine the location of the animal.

In this final project research, a dual polarization antenna with a reflector will be applied. The antenna will use a working frequency of 2.4 GHz. The antenna will be made in the form of a microstrip with a gain of 8 dB. To obtain an antenna with double or cross polarization, the antenna will be assembled into a cube shape. 4 microstrip antennas will be combined into one, so that there is an antenna that is used as a receiver of a vertical linear polarization signal and one that functions as a receiver of a signal with a horizontal linear polarization. Once assembled into one, the four antennas will be combined using a power combiner. So that the antenna will be an array and can capture signals with linear and circular polarization.

Keywords: Antenna, Tracker, Yagi, polarizing, dual