ABSTRACT

Television works by processing the electromagnetic waves from each transmitter station. Picture and sound quality of the television is very dependent on the receiver performance. Therefore, the receiver must have a good specification and capable of covering the frequency range used by the transmitter to ensure receipt of the broadcast.

Research of this Final Project is related to the design and realization of Log Periodic Dipole Array antenna as a television receiver. The design begins with determining the specifications of Log Periodic Dipole Arrayantenna if applied to the microstrip. Optimization is then performed, in order to minimize the manufacturing cost without changing the target operating frequency and the VSWR.

*From the measurement results of the antenna, obtained specification that close to the simulation software 1.0.2 Antenna Magus and CST Studio Suite 2011, that is: working frequency: 400 MHz - 800 MHz; impedance: 75*Ω *unbalance;* VSWR*: <2; radiation pattern: unidirectional; polarization: horizontal; Gain: ≈3* dBi.

Keyword: televisions, receiver antenna, Log Periodic Dipole Array, microstrip