

ABSTRACT

As technology grows rapidly in the field of broadcast media such as television, Antenna devices are indispensable in broadcast communication. The quality of an Antenna greatly affects the quality of the information received, so that the receiving Antenna must have good specifications and be able to cover the range of frequencies used by the transmitter to ensure receipt of the broadcast, must be made in accordance with the desired application and meet the parameters - parameters of the Antenna..

In designing this final project, designed as a Microstrip Antenna LPDA Digital TV Receiver. This Antenna works at a frequency of 478 - 694 MHz (digital TV broadcast frequency) using FR4 substrate. The LPDA Microstrip Antenna (Log-Periodic Dipole Antenna) is simulated using the CST Suite Studio Software whose results are realized in physical form. The results of Antenna design in the simulation after optimization on the frequency of 586 MHz obtained the Return Loss value reaches -31.303 dB, VSWR reaches 1.056, and the Gain reaches 5,67 dB. The measurement results after being physically made obtain a value at a working frequency of 586 MHz, Return Loss of -27.937 dB, 1.4W VSWR and Gain of 4,665 dB. The design results are in accordance with the desired Antenna specifications.

Keywords: *CST Suite Studio Software, digital TV, LPDA Microstrip.*