

ABSTRACT

Television is one of the devices is the recipient of the information used by the public. The Government's plans in the digital television starting in 2012 with total migration to digital in 2018. As regulator, the Ministry of Communications and Informatics has set regulations Minister Kominfo number 25 by 2014 about organizing the reception of digital television free to air. Digital TV antenna has been circulating in the market but with large size. Large size antenna has some drawbacks, that need a place that is quite extensive, are not flexible, the price is quite expensive.

This project will be carried out the design and the realization of the low profile high gain UHF antenna for digital television. On the design of the antenna is expected to have a high gain but with simple shapes. The design of this antenna using software CST Studio Suite. Design of the antenna operates on a frequency of 526 MHz-694 MHz with gain ≥ 10 dB, bandwidth 168 MHz, and VSWR ≤ 2 with radiation pattern unidirectional.

Measurement result obtained shows that the antenna can work on a frequency of 526 MHz-694 MHz. VSWR at frequency 588 MHz is 1.0426 and return loss -33.797 dB. It has an unidirectional radiation pattern and highest gain 11.04 dB in frequency 610 MHz.

Keywords :Digital Television, UHF, Low-Profile High-Gain Antenna