

## **ABSTRACT**

*Digital Video Broadcasting Terrestrial 2 (DVB-T2) is a standard for digital terrestrial television broadcasting that offers significant benefits compared to its predecessor, DVB-T. This study analyzes the quality of the field strength at 8 test points using measurement methods, Radioplanner 2.1 software simulation with the ITU-R P.1546 propagation model, and calculations. The overall quality of the field strength received by the receiver in the coverage area of the MNCGROUP Tegal relay station is good with a transmitter power of 2.3 kW. However, there are two points in Alun-alun Pemalang and Alun-alun Batang with field strength values of 40.2 dB $\mu$ V/m and 40.8 dB $\mu$ V/m. These values do not comply with the regulations of Minister of Communication and Informatics No. 6 of 2019 minimum field strength is 47.4 dB $\mu$ V/m. Factors such as weather conditions or interference from other sources contribute to additional losses, resulting in field strength values that do not comply with regulations. To address this issue, a power enhancement to 3.3 kW at the transmitter is proposed, ensuring that the received field strength at all points in the area complies with regulations..*

*Keywords : DVB-T2, Fieldstrength, Coverage Area, ITU-R P.1546*