ABSTRACT

The development of digital technology gives the dominant contribution to the convergence in the fields of broadcasting, telecommunications and information technology. One of them is Digital TV broadcasts that allow the reception quality picture and sound better and can be enjoyed by viewers with a variety of devices like mobile phones (cell phone), PDA (Personal Digital Assistant), computer and TV media, which is immobile (fixed) and moving (mobile). Indonesia adopted the standard use of Digital Video Broadcasting (DVB) as a digital TV broadcasting system.

In this final project analysis be conducted radio propagation measurement results for Digital Video Broadcasting-Terrestrial (DVB-T) and Digital Video Broadcasting-Handheld (DVB-H). The data used is the radio propagation measurement data DVB-T and DVB-H in Center of Jakarta area. Processed data and the modeling of Distance Power Law to describe the propagation characteristics of the effect of distance (d) of the received power (Pr).

Modelling Distance Power Law are then compared and evaluated using the Okumura-Hata model and Model ITU-R P.1546-4. From result of comparison and evaluation, can be concluded that: at frequency 575.25 MHZ for DVB-T and 498 MHZ for DVB-H, modelling of Distance Power Law yield path loss exponent, $n$, 4.6 and 4.1 with standard deviation 9.95 dB and 7.36 dB,. While model of Okumura-Hata and model of ITU-R P.1546-4 used incompatible to radio propagation characteristics of the DVB-T and DVB-H in Center of Jakarta area.

Key words – Digital TV, DVB-T, DVB-H, Model Okumura-Hata, Modelling Distance Power Law, Model ITU-R P.1546-4