ABSTRACT

The development of telecommunication technology is now up to the 4th generation of Long Term Evolution (LTE). But before developing as now there are 1G, 2G and 3G networks, each network has its own advantages as in 2G its advantages over the distance of coverage that is further than the other and for 4G its excess is in the data rate used. However, for 4G coverage area is not as wide as coverage area on 2G network.

The planning of a cell in urban, suburban or rural areas is different because the reflected signals in the three regions are different, this is due to the density/density of different houses or buildings. The number of reflections along the channel through which the signal will cause damping/power lost along the channel or better known as pathloss. This attenuation affects signal quality and will also shorten the signal coverage range. Therefore pathloss calculation is very important in the planning of a cell. And to find out how a cell runs smoothly in doing checks by doing Drivetest. The purpose of the Drivetest itself is to collect real network information in the field. The data obtained from Drivetest for Purwokerto site located on Clutter Urban is 2.2 Km, for Rempoah site located on Clutter Suburban as far as 2.9 Km and for Kedungrandu site located on Clutter Rural as far as 3.0 Km. In this thesis has been obtained the result that the modeling pathloss suitable for use in the area of Banyumas is Cost 231. This is obtained from the results of comparison between Drivetest results with calculations Walfisch Ikegami with Cost 231 on the third Clutter. And on the third clutter that is closest to the result of Drivetest is Cost 231.

Keywords: Cost 231, Walfisch Ikegami, Drivetest, Pathloss