

ABSTRACT

The implementation of wireless networks in Indonesia is still being held today. For equitable network coverage, it is necessary to develop. In the development process there are several parameters that must be considered, such as: gNodeB height, signal coverage distance, transmit power and so on. These parameters will later affect several aspects, one of which is the magnitude of the pathloss value. Pathloss is the attenuation or magnitude of power lost in the process of transmitting information through radio waves caused by the distance, frequency and height of the antenna. This needs to be considered so that later it will be profitable on the side of the operator and also the customer. This study analyzed pathloss and power receive at a frequency of 2.3 GHz which was seen from several factors such as the height of the gNodeB and the distance between the gNodeB and the receiver using Urban Micro (UMi) 3GPP ETSI 138 901, Alpha Beta Gamma (ABG) and Close-In (CI) modeling.. From the results of this study, it was found that the distance and height of the gNodeB (LOS) greatly affect the magnitude of the pathloss value and the resulting power receive value, while the high gNodeB in NLOS conditions is very slightly affected. UMi modeling in LOS conditions has the lowest average value of pathloss with a value of 82.91 dB and CI modeling with the largest average value of 83.79 dB. The same is true of NLOS conditions, UMi modeling has the smallest average value with a value of 82.91 dB. And the largest average value of pathloss is CI with a value of 111.66 dB.

Keywords: *Wireless Network, Pathloss, Power Receive, UMi, ABG, CI.*