

ABSTRACT

Problem concerning issues such as poor coverage coverage can cause the received signal is very low user. The more users the more power used and will raise the level of interference. HSDPA was introduced in Release 5 UMTS architecture intended to improve performance in the downlink direction. One service that has been applied to the HSDPA network is video streaming. In this study is discussed regarding changes in the coverage area of the HSDPA network performance on a streaming video application that includes parameters RSCP, Ec/No throughput downlink using drive test.

Results of the test drive on node B MLONGGREEN sector 2 found that the minimum transmit power range (-88dBm to -81 dBm) for the streaming is 400 meters. Streaming can not be done at the time of testing more than 400 meters. This is because the value of RSCP already below -88 dBm, which is below -88 dBm transmit power can not do streaming. The value of Ec/No obtained at -14.50 dB, which is below the standard value of Ec/No is -12 dB. Value streaming speeds below 1Mbps, which for a streaming speed of at least 1 Mbps.

Based on the results of optimization by changing the mechanical uptilt value of 6° to 2° was found that the minimum transmit power range (-88dBm to -81 dBm) for the streaming before optimization is 0.35 Km^2 , after 0.50 Km^2 optimization. Minimum distance Ec/No good quality (-8 dB to -12dB) before optimization was 0.71 Km^2 and after optimization is 0.80 Km^2 . No change at the speed of throughput caused by changes in mechanical uptilt effect on the change of coverage area.

Keywords : HSDPA, Coverage Area, RSCP, Ec/No, Throughput, Scrambling Code