

ABSTRACT

Based on the results of the drive test, 72.22% of the Gramapuri Tamansari Cibitung area had downlink throughput quality below the standard KPI parameter of less than 8 Mbps. Based on oss data in the region, the PRB utilization value reached 83.93%, additional capacity from the downlink side is needed.

In this final project, a comparison of the TDD frame structure with the Inter-Band Carrier Aggregation FDD-TDD method in the Cibitung area is carried out, on band 3 FDD 1800 MHz and band 40 TDD 2300 MHz by simulating using atoll 3.3 software. The parameters measured are downlink throughput, uplink throughput, RSRP, SINR and user connected.

The result of this final project is a significant increase in network quality with an increase of 63% in downlink throughput, 65% uplink throughput and 4% user connected in the Gramapuri Tamansari Cibitung area.

Keywords: *Carrier Aggregation, Throughput, FDD, TDD.*