ABSTRACT

Building materials are one of the factors causing the signals from eNodeB to be blocked by building materials causing weakening of signal power. Transmart Buah Batu is one of the malls in Bandung that have problems about the quality of the network and not yet installed the indoor network in the building. Based on the analysis, the average value of RSSI is -78,34 dBm and the average value of SINR is 4,47 dB.

The implementation of TDD (Time Division Duplexing) method to IBC (Indoor Building Coverage) supports the optimization of data transmission with DAS (Distributed Antenna System) case study operator Smartfren frequency band on 2.3 GHz. Some scenarios for this plan are doing Walk Test with software TEMS, the dimensioning of capacity and coverage using Cost 231 Multi-wall models Propagation, and doing simulation using software RPS (Radiowave Propagation Simulator).

The results of this plan obtained the value of RSSI parameters on the ground floor, 1st, 2nd, and 3rd floor respectively -49.73 dBm, -46.73 dBm, -47.85 dBm, and -44.46 dBm and reviewed based on SINR parameters from the ground floor, 1st, 2nd, and 3rd floor respectively of 23.64 dB, 29.52 dB, 24.63 dB, and 16.8 dB. This plan has reached the target of RF parameters used by smartfren operators.

Keywords : Indoor Building Coverage; LTE; TDD; RPS; Parameter RF