

ABSTRACT

The number of users and construction of buildings whose walls are made of concrete that has many facilities in Tamansari Panoramic Apartment Bandung which cause signal level has less than the maximum signal quality. Based on the results of my interviews with some residents they complained about the signal quality in the department because they feel less satisfied with internet services. To handle this problem required the construction of IBC (Indoor building coverage) in LTE frequency in order to improve the signal power received in Tamansari Panoramic Apartment Bandung.

In this Thesis, IBC planning use TEMS Pocket software to walktest before for acknowledging the signal quality in building, using RPS 5.4 software for simulation of active device placement and passive device and also need power link budget calculation to get RSL and SIR value that required with standard RF parameters / operator It is expected that the quality of service (QoS) made can be in accordance with the RF parameters standard that has been determined by the operator and could be a reference for the building management when the IBC will be built in Tamansari Panoramic Bandung

The result of indoor LTE network planning at Panoramic Apartment Bandung on Thesis was obtained RSRP for 10th to 19th floor and direct simulation for all hotels respectively -61,19 dBm, -61,09 dBm, -60,98 dBm, -60 , 87 dBm, -60,87 dBm, -60,98 dBm, -61,09 dBm, -61,19 dBm, -55,3 dBm and 55,4 dBm. For SIR values obtained from the simulation results on floors 10 to 19 and simulations throughout the floors are 18.21 dB, 16.87 dB, 16.87 dB, 16.87 dB, 16.87 dB, 16.87 dB, respectively, 16.87 dB, 16.87 dB, 16.87 dB and 16.92 dB respectively. From the results of the simulation, LTE indoor network planning has met the standard RF LTE indoor space planning used by one of the telecommunications operator.

Key Word: *LTE, IBC (Indoor building coverage), Walktest, Coverage, Capacity, Radiowave Propagation Simulator (RPS)*