

ABSTRACT

Pasar Baru Heritage Building is one of the shopping centers in the city of Bandung. The building is one of the new buildings that does not yet have an indoor network system or IBC (Indoor Building Coverage) installation. Based on the results of the walk test obtained an average RSRP value of -115.03 dBm to -93.41 dBm and SINR of -3.08 dB to 5.73 dB. This does not meet operator standard 3. While based on drive test results, the average value of RSRP and SINR meets operator standards, namely RSRP -83.93 dBm and SINR 7.38 dB.

To overcome the above problems, an IBC plan was carried out at the Heritage Pasar Baru building. IBC planning is done to improve poor signal quality in the building. IBC is designed on LTE FDD 1800 MHz with 10 MHz Bandwidth. The simulation will be carried out using RPS 5.4 software with the measured RF parameters namely RSRP and SINR.

The target of operators is 3 RSRP > -90 dBm and SINR > 5 dB or percentage of 80%. Based on the simulation results obtained an average RSRP > -72.68 dBm to -79.37 dBm and SINR > 9.48 dB to 15.23 dB. By comparing the simulation results obtained, it is found that the plan meets operator standard 3 which causes the area of the Heritage Market Baru building to increase in terms of coverage.

Keywords: *LTE, IBC, Capacity, Coverage, RSRP and SINR*