ABSTRACT

The Edge Cimahi Apartment Building is one of the apartments in Cimahi City located at Baros Street 57, Cimahi City. The building is occupied by many people so there are many access of multimedia data services such as data transfer and chatting. This building has a high level of user density where good quality LTE network is needed. The building construction and materials are factors cause signal attenuation increases and blankspots in several corners of the room.

The right solution to overcome these problems is planning Indoor Building Coverage (IBC) installation. In IBC planning, capacity and coverage are calculated, then determine the value of the RSRP and SINR parameters using TEMS Pocket software at the walk test before stage, and simulating by RPS software. The simulation results target of the planning are >-90 dBm for the average RSRP value and the average SINR value in >6dB.

Through the calculation of coverage and capacity planning obtained 3 sectors and 3 antennas on each floor. Based on simulations obtained the average of RSRP ranged from -45.56 dBm to -27.75 and SINR ranged from 19.05 dB to 25.83 dB. Thus the simulation results are in accordance with the RF standard parameters of the H3I operator which causes the Edge Apartment Building area has capacity and coverage enhancement.

***Keywords**: LTE, RSRP and SINR, Indoor Building Coverage, Coverage and Capacity Planning, RPS.*