ABSTRACT

Communication selluler today is one of the most important in this modern era. At the moment communication selluler in indonesia are already on generation 4 (4G) or frequenting we heard in the name of LTE (Long Term Evolution). By means of technology LTE would facilitate everyone in access data at high speed . Especially Balubur town square bandung is one of the largest trading Bandung many visited inside and outside of Bandung. With the number of visitors increased , resulted in a fall the quality of the signal and coverage in the mall which was decreased the level of resources received , so that the signal becomes performance down . So as to need planning LTE network he had done.

From research duty the end of has been conducted comparison between DAS (distributed antenna system) with technology Indoor Pico (Lampsite) for the expansion of coverage and capacity by using PCI (Physical Cell Identity). PCI (Physical Cell Identity) is one of the parameters of 0-503 every transmitter to send information to every cell certain users to avoid the interference.Allocations physicall cell identiy on numbering pci it uses 142 s / d 167 secondary synchronization signall.

Of the calculation on that has been done technology Indoor Pico (lampsite) have coverage a larger area that causes less estimation cell in lampsite namely a 16 lampsite basic floor 1 , basic floor 2 16 lampsite , 16 lampsite lower ground , upper ground 16 lampsite , the 1st floor 7 lampsite and the results of simulation for each the floor there rsl value -49,98 dBm, -52,79 dBm,-52,27 dBm, -52,55 dB dan -50,33 dBm. For SIR values obtained from the simulation results on 5 floor is 11.84 dB ,21.71 dB, 14.95 dB, 14.37 dB dan 5.46 dB. From the results of a simulation obtained , Planning indoor LTE network in compliance with the KPI (key performance indicator) LTE Planning indoor used by telkomsel.

Keywords: lte,receive signal level (RSL), signal to interference ratio (SIR) , coverage, capacity, physical cell identity (PCI).