

ABSTRACT

Signal is one of the most important things in mobile communications. Without the signal, the communication will be hampered because the voices do not sound clear and distinct. There are several factors that cause the signal is blocked, one of which is blocked signals storey buildings. This is not only detrimental to the area around the building but may also result in weak signals in the building. Weak signals in the high rise building due to the area are not covered well by the BTS.

In Jakarta, many new buildings that have not been covered by the BTS, one of which is the Season City buildings that have not been covered well by Smart macro BTS when the building is a public area used for the Mall, so it prioritizes the maximum signal. Sometimes the power received by the MS (Mobile Station), especially in relatively small room or building. This is due to the limited transmit power BS (Base Station) and damping large area around the MS. The region is also limited coverage area, allowing the blankspot. In order to get the maximum signal in the building that the Season City is necessary to design an indoor base stations.

The design of this network include: survey locations around the building that the signal is weak, DAS (Distribution Antenna System), BTS Sensitivity and limit the maximum output power of base stations (BTS BTS Sensitivity & Max Output Power), Losses Calculation, Power Budget Calculation, Define Channel Loss in Non: Determine EIRP, Depictions of the distribution system (Indoor Distribution System Drawing). Network design that indoor base stations using the RX-level RPS to get more than -80 dBm.

Keywords: Signal, Season City, the indoor base stations