

ABSTRACT

Cellular mobile communication systems have become a basic necessity in the activity on the campus area. Indoor cellular network needs to be an absolute in a closed area such as buildings. Not to cover most of the signal, Telkom Flexi, Telkom Polytechnic building in the signal due to the weak macro BTS emanated to enter into the building.

Final Project In this installation is done network Buiding Indoor Coverage (IBC) for the floor that can be ter-cover. In the process of selection BTS needs to be able mengcover cell system with the reliability of 90% in the cell edge is done several steps including: determining the critical point and the loss .the loss indoor cable network, and the fading margin. As the output is determined that the BTS which is used

Implementation of the system in the building CDMAindoor Politeknik Telkom is to install the RF Repeater for the amount of power scattered from the BTS, as a base signal that is not dilokasi ter-cover, with attention to aspects of the transmission (coverage) and traffic (intensity users). Aspects include determining the location of the transmission antenna, determining the radius coverage, and how most users, Telkom Flexi, so laying the antenna according to the needs in the building Politeknik Telkom.

Final Project design is the design IBC Network Telkom Flexi CDMA 2000 1X with the appropriate standard Telkom Flexi CDMA network standard and Receive Signal Level (RSL) on the operator Telkom Flexi.simulated By this design by using the RPS 5.3. RSL (Receive Signal Level) on the design of the IBC building Politeknik Telkom is -65.15 dBm to -70.37 dBm. Use of Omni antenna is 4 units on the ground floor up to floor 3 to maximize the power coveredan reception received. In the simulation results shown RSL planning and path loss value. Simulations made in the Floor.Penetration which occurred in the simulation are directly on the signal is one with a cover by Flexi network.

Keywords: Indoor Building Coverage (IBC), Link Power Budget, coverage, macro BTS.