ABSTRACT

CDMA 2000 1x system can gives voice and data services with 153,6kbps link rate. This one is 2,5rd generation technology which is migration way from CDMAone to 3G(CDMA 200 3x).

In this project will be researched about link budget calculation, that one is MAPL calculation and cell radius in reverse direction for Dense Urban, Urban, Sub Urban, and Rural. Beside that, comparing between cell radius from pratical calculation, simulation result using Airpro Planning Tool, and Optimation result. Then we can takethe data. That one is parameter used in link budget calculation. From this data, we get cell radius for Dense Urban, Urban, Sub Urban, and Rural is 0,53km, 0,78km, 2,93km, and 17,55km with 70% loading cell. With this 70% loading cell, we get per sector capacity that can do outgoing calling simultaneously with 25 user. Whereas per sector maximum capacity is 791 user.

For Rural areas, cell radius is 17,55km using pratical calculation, whereas from the result of simulation is 8,95km and 8,05km from optimation result. So from this difference we can find many causes.