

ABSTRACT

In the evolution of mobile network systems from the second generation (2G) to the third generation (3G), different types of systems may be deployed in adjacent frequency bands in the same area. In such scenario, intersystem interference occur the lack of RF isolation, which results in the capacity and quality degradation of both systems. The operators should consider the issues of coexistence of different systems carefully in the stage of network planning.

CDMA2000 and WCDMA are two different systems that can coexistence each other in the same environment. The problem of this application is the overlap band between uplink frequency WCDMA and downlink frequency CDMA2000. This overlap band is about 50 MHz, i.e, between 1930 MHz until 1980 MHz.

In this final project, the capacity and quality degradation that caused by the coexistence of CDMA2000 and WCDMA are investigated, so the technical recommendation can be formulated in order to rich the optimum performance.

Keywords : intersystem interference, coexistence, CDMA2000, WCDMA, overlap band, performance.