

# ChungKe Wi-Max System RF Planning Interference and Blocking Research

張育誠, 張靖, 賀國英, 張其源

Transportation Technology and Logistics Management

Management

ching@chu.edu.tw

## Abstract

Coverage is not fully addressed if interference is not considered. Interference comes from ambient noise, co-channels and adjacent channels. Consideration must be given to both the uplink and the downlink. SA (Simulated Annealing) [1] technique is used to optimize coverage by varying the bearings and the down tilts. A bandwidth of 30 MHz is allocated for this project at 2.5 GHz. It is divided into three 10-MHz channels. Each user is allowed a maximum of 1 MHz. Each channel is assumed to support a maximum of 70 users. On the average, each site is assumed to have a load of 50 erlangs. The eight sites will put a total of 400 erlangs of traffic on the system.

Keyword : interference, SA, channel, bandwidth, traffic