ABSTRACT

Many microstrip antennas are developed because of light in weight and adjusting a shape of placing. The feeding method of these antennas are divided into three types, which are microstrip feeding, probe feeding, and EMC (*electromagnetically coupled)* feeding. The EMC method is recognized at the first time by K.F Lee and designed for producing a wide bandwidth. To get higher gain on this microstrip antennas, single antenna can modified become an array antenna.

At this Final Project, the array microstrip antenna is designed and simulated at range frequency 2300 MHz – 2400 MHz for supporting WiMAX technology. The simulation of this antenna is using Ansoft HFSS 9.2 software. The used feeding method is EMC with the dielectric of air at the feeding structure of L-strip. In the simulation, the repetition of size of the antenna dimensions, which are patch, groundplane, feeder, and also a height of air gap, is done for getting a suitable result to the specification of antenna design. The result of simulation is implemented with using a material, which is a copper with a thickness 1 mm.

Password: Microstrip Antenna, EMC Feeding Method, WiMAX