

ABSTRACT

Wireless Technology Mobile has a great progress for now on because this communication system can be implemented fast and reliable. One of electronic device which has important role in wireless community is antenna with light weight and compact design such as microstrip antenna. Furthermore, wireless community also needed Switch-Beam Smart Antenna which has radiation pattern to desired users so that capacity system in certain areas can be increased

In this final project has been realized microstrip antenna Weixia Wfu which multi feeding assembled in each patch to get sharp and directional Beam width. High Frequency Structure Simulator (HFSS) 12.0. is Simulation Software that used in this final project.

The simulation, design, and realization in this final project has been obtain Single antenna which has different state radiation pattern from amount and combination feedline in each patch. This single antenna has 4 feedline with 2 combination position of feedline and has 4 state radiation pattern. The value of VSWR of this antenna approximately 1.5 at 2.441 GHz, whereas the polarization has almost elliptical shape based on measurement. Research of switch beam antenna is analyzed and summarized in this final project.

Keywords: *antenna switch beam, multi feeding, microstrip*