

ABSTRACT

WiMAX(Worldwode Interoperability for Microwave Acces) is a wireless technology that will be implemented in the future. WiMAX is a standard for Metropolitan Area Network (WLAN) that created as solution for frequecies spectrum and wired network problems. WiMAX standard 802.16e which introduced by IEEE saying WiMAX can support data peak rate up to 75Mbps and have area coverage 50km.In order to used together with WLAN technology, it need an antenna that can operate on frequency, gain and radiation pattern as we want.

In this final project will research and realizing dualband Triple Biquad antenna that can work on 2 diffrent frequencies , on 2300-2400Mhz and 3300-3400Mhz. Antenna dimensional modification attemp to optimize on simulation, and then use it for realization of the antenna. Antenna that have been realized expected have better gain, and can fulfill Wimax and wi-fi technology.

This dualband triple biquad antenna created based on simulation model. The result which is obtained from the measurement at $VSWR \leq 1,5$,are frequency range at (2270 – 2550) MHz and (3290 – 3570) MHz. The radiation pattern of this antenna is bidirectional and have an elliptical polarization.The Gain of this antenna are able to reach until 9,01dBi.

Keywords : wimax, biquad antenna, biquad, triple biquad, wi-fi