

ABSTRACT

Antenna is very important device in the wireless telecommunications system. The functions of Antenna is to convert guided waves to free wave, or otherwise. Growing of technology need more information to develop it. An antenna in the future not only created for lightweight tools and a single function but also must be able to qualify and to operate a few bands that sufficient to cover possible operating areas. Therefore we need an antenna that able to fulfill various requirements these different communications.

An antenna that will be realized on this final assignment is use a method shaped. Shaped is one way to give defacement on the strip to produce the desired frequency response Antenna will be made by the shape of rectangular with shaped in some parts of the rectangular strip. Specifications frequency of antenna is 2.3 GHz, 2.4 GHz and 3.3 GHz for WLAN and WiMAX applications, with a characteristic impedance of 50Ω , $VSWR \leq 2$ and, having antenna gain ≥ 3 dBi.

The results of the Rectangular Antenna design. Antenna is able to work in Frequency 2.3, 2.4 and 3.3 GHz. But do not get bandwidth as expected, which bandwidth reality is 67 MHz, 41 MHz and 94 MHz for each - their frequency response.

Key Word : Rectangular, Triple Band, Bandwidth, WLAN, WiMAX