ABSTRACT

Technological growth of mobile wireless communications in modern world is going faster and immeasurable. It makes a lot of emerging the new technology standard and sophisticated progressively. To provide that technology, Apparatus which cannot be discharged and absolute there must be in wireless communication system is antenna. Antenna is the device that transforms guided wave into free space wave and vice versa. The function of antenna as transmitter and receiver electromagnetic wave which very important in wireless communication.

Bowtie antena is a method from dipole antenna which development from biconical antenna to two dimention antenna like two triangle flat metal. Bowtie characteristic have wide of impedance and its impact to bandwidth antenna. In this final assigment , bowtie antenna create on frepoxy substrat like printed circuit board antenna which work in high frequency. Bowtie antenna in this final assignment include fractal method to increase gain of antenna. Because of this antena is balance and transmission line is unbalance therefore using coaxial balun.

At this final assignment designed , simulation , realitation , and measurement Sierpinski Triangle Bowtie Antena and the result is :VSWR minimum is 1.244 , frequency range under VSWR ≤1.5 is 2217 – 2595 MHz and bandwidth of the antena is 378 MHz. Gain of antena is 2.093dBi, omni directional radiation pattern and have elliptical polarization.

Key Word : Sierpinski Triangle Bowtie, Balun.