

ABSTRACT

Antenna is main part in radio communication, either broadcast, point to point or cellular communication, antenna has very important function. Antenna functioned on the end of the transmitter and in face of receiver, because Antenna function is matching intrinsic impedance of propagation space on the characteristic impedance with channel of radio, so the information could be broadcast and could be received in receiver.

On radio communication, the electromagnetic waves is guided to channel of transmission, and the electromagnetic waves free space is guided in the air or in the empty space, propagation space – dielectric as usually.

Intrinsic impedance on the air is 120π ohm or 377 ohm and the impedance of channel transmission usually is 50 ohm, so turn up a hypothesis that antenna is a thing that will match intrinsic impedance of propagation space on the characteristic impedance to intrinsic impedance of dielectrica propagation space.

This project aims to design and realization to the *Design and Realization of a Triangle Bidirectional Antenna for Range 300 MHZ – 3000 MHZ Without Ferit, Twin wire* . Bicula Triangle Bidirectional Antenna that based on twin wire and flat which build on triangle gradual matching so that has wide band and will HPF (High Pass Filter), with $VSWR \leq 1,5$ with bidirectional pattern of radiation and wide band. This antenna build to fulfill the specification frequency range 300 MHZ – 3000 MHZ . The design of this antenna aims to get the specification frequency $\geq 1000MHz$, bidirectional polaradiation, linier polarisation, gain $\geq 2,14dbi$ and used SMA connector 50 ohm.

Key word : antenna, frequency, without ferit, triangle gradual matching.