

ABSTRACT

In recent years the telecommunications market requirements lead to the transfer of information with a large capacity and fast, so it takes communication devices that can work with a wide bandwidth.

Microstrip antenna is one type of antenna shaped thin board and capable of working at high frequencies. The weakness of this antenna is one of its narrow bandwidth coverage. Many ways have been made to overcome this, such as using elements of parasitic, adding the thickness of the substrate, reduce the dielectric constant, or by making modifications patch like antenna U-shaped, V-shaped, S-shaped, and the E-shaped.

H-Shaped Antenna is rectangular microstrip antenna which modify the shape of the patch antenna and also has a dimension that simple. In this final project was to design and implementation a wideband microstrip antenna that forms the H-shaped which works at a frequency of 1800-2400 MHz. Results are obtained in this final project with a center frequency of 2100 MHz which is VSWR of 1.6917, return loss amounted -11.8023 dB and a bandwidth of 773 MHz with a directional radiation pattern and the gain is 6.73 dBi.

Keyword : *Wideband, Rectangular Microstrip Antenna, H-shaped*