

ABSTRACT

Wifi or Wireless Fidelity is a wireless standard of wireless Networking. Formerly , Wi-Fi was used on to wireless devices and Local Area Network (LAN), but now is more used for Internet data accessing. 802.11 standard was legitimated in 1997 and operated at a frequency of 2.4 GHz. WIFI technology requires small antenna, lightweight, inexpensive, and easy to be produced.

In this final project, design and realization of bandnotch monopole microstrip antenna for WIFI applications at frequency of 2.4 GHz with a gain of ≥ 2 dBi. In this design uses FR4 epoxy material, with $\epsilon_r = 4.4$ and a thickness of 1.6 mm, it is suitable for high-frequency antenna application. For the simulation in this research uses CST Microwave Studio

Design result by CST studio microvawe is obtained the accordance result with the antenna spesification, with the VSWR ≤ 1.5 and the gain is 2.381 dBi. The results of this antenna measurement realisation it has a elipstical polarizaton, gain 4,304 dBi and omnidirectional radiation pattern.

Keywords: WIFI, omnidirectional, gain, microstrip