ABSTRACT

Radio Frequency Identification (RFID) is a generic term for the technology that use radio waves automatically to identify people or objects. This RFID tecnology is can be identified without use of cables. If it had previously known use of the barcode, the identification process is done by touching. RFID offers completing superiority of the barcode. Nowadays, RFID commonly uses in the several sectors such as in the factory, department store, hospital, evenmore it is used for identity of university lecturer. There are two important components of RFID. There are reader antena RFID and tag RFID. This antenna is designed in this final project at the center frekuensi of 924 MHz, the frequency range 923-925 MHz with specificity gain greater than 2,5 dBi and 2 MHz bandwidth. In designing this final project aims to make small and practical in use, designed antenna is microstrip antenna with substrate fr-4 epoxy material with a thickness of 1,6 mm and $\boldsymbol{\varepsilon_r}$ *4,6 and square monopole spiral patch of microstrip antenna.*

In this design the RFID tag antenna with size of 2,5 × 1,6 cm, at UHF working in frequency at 924 MHz obtained VSWR equal to 1,107, bandwidth of 24,609 MHz, omnidirectional radiation pattern, gain -12 dBi and the polarization ellips.

Keywords: microstrip antenna, RFID antenna, RFID tags, square monopole spiral patch