Abstract

Continuous researches are carried out on different identification technologies. The Radio Frequency IDentification (RFID) is the well-known one. The most RFID systems used are the passive systems based on backscattering modulation. In this paper, analysis and design of a Dual IFA (Inverted F Antenna) Tag antenna are proposed for UHF RFID applications. The antenna is designed to operate at 0.4 GHz and 2.4 GHz; it is fabricated on the FR4 substrate with dielectric constant of 4.4. The antenna fundamental parameters such as return loss, radiation pattern and current distribution are presented. Simulation tool, based on the FIT (Finite Integration technique), (CST Micro Wave Studio) has been used to analyze the antenna. The proposed dipole antenna is simple and robust in design.

References

- RFID at Ultra and Super High Frequency: Theory and Application; Dominique PARET; John Wiley Sons Publication.
- RFID-A GuidetoRadio Frequency Identification; V. DanielHUNT, Albert PUGLIA, Mike
PuGLIA; A John Wiley & Sons, Inc.
- Design of New Multiband Slotted PIFA Antennas; Yamina BELHADEF, Nouedienne BOUKLI HACENE; IJCSI International Journal of Computer Science Issues, Vol. 8, Issue 4, No 1, July 2011
- Effects of size and shape of metallic objects on performance of passive radio frequency identification; Lauri Sydänheimo, Leena Ukkonen, Markku Kivikoski; The International Journal of Advanced Manufacturing Technology Volume 30, Numbers 9-10, 897-905.

Index Terms
Computer Science Wireless

Keywords
Rfid Dual Band Ifa Tag Antenna Uhf Finite Integration Technique.