Microstrip Patch Antenna Miniaturization by using Split Ring Resonators Which Are in-Plane for WLAN Application


NCPSIA 2015 - Number 3

Year of Publication: 2015

Authors:
Goutham V.
Vani H. R.

{bibtex}ncpsia17267.bib{/bibtex}

Abstract

Combining the antenna miniaturization and bandwidth preservation could increase the challenges of integrating the smaller, thinner, low profile, high efficient antennas into equipment for different applications. In this paper, a novel Microstrip Patch Antenna with reduced size for WLAN application is proposed. Introducing in-plane Split Ring Resonators (SRRs) in the vicinity of the patch, and found that the configuration escalated the miniaturization by 42%. The simulated results showed that there was significant improvement in bandwidth. The design and performance analysis of the proposed antenna was carried out using Ansoft HFSS.

Refer
References

- A. Boufrioua and A. Benghabla, "Effects of the resistive patch and the uniaxial

**Index Terms**

Computer Science

Wireless

**Keywords**

Compact  Electromagnetic Bandgap  Metamaterials  Microstrip  Miniaturization.