Abstract

This paper presents designing of capacitive fed and electromagnetic coupled MSA. These are designed to overcome the disadvantage of MSA i.e. narrow bandwidth. The antenna design is simulated using HFSS software. Antenna is designed at frequency of 2.4 GHz. Capacitive fed antenna provides wide bandwidth. It's working frequency range 2.275-2.905GHz with return loss of less than -10 db. Capacitive fed with electromagnetic coupling MSA antenna works on frequency range 1.915-2.83GHz. Hence bandwidth enhancement can be obtained by ECMSA. The proposed antenna designs can be used in WLAN band 2.4 GHz, USB dongle, UTMS & Bluetooth communication.

References

- S. Murugan, V. Rajamani "Design of WidebandCircularly Polarized Capacitive fed Microstrip Antenna"; 1877-7058 © 2011 Published by Elsevier Ltd.
Designing of Wideband Microstrip Patch Antennas at 2.4 GHz

Subhajit Sinhaa, Biswarup Ranab, Chandan Kumar Ghoshc, S. K. Paruid "A CPW-Fed Microstrip Antenna for WLAN Application" 21© 2011 Published by Elsevier Ltd.

Dr. Ravi M. Yadahalli1, "Compact broadband coupled probe fed microstrip antenna for wireless applications" IJETR, Vol 1(2): July-2012


Sandeep Kumar, Manish Rai, Raj Kumar, Jayanta Ghosh "Analysis and Design of Capacitive Coupled Wideband microstrip Antenna in C and X band" International Journal of Engineering and Advanced Technology, April 2013

G. Karthikeyan1, Dr. Meena, jeyanthi, Ms. S. Soniya, Ms. Thangaselvi "Electromagnetic Coupling Microstrip Patch Antenna for Improving Wide Bandwidth and Broad Beamwidth" International Journal of Innovative Research in Computer and Communication Engineering Vol. 2, Special Issue 1, March 2014

Index Terms

Computer Science  Communications

Keywords

Microstrip Patch Antenna (MSA)  Capacitive fed MSA  Electromagnetic coupled MSA (ECMSA)