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 Wideband Circularly 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 "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


- Parmesh S. Pawar Prof. Deeplaxmi V. Niture "Design of Suspended E-Shaped Capacitively Fed Microstrip Patch Antenna" Antenna Volume : 2 | Issue : 6 | ISSN No 2277 – 8179, 2013


- 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)