Abstract

In this paper, a compact circular shaped microstrip monopole patch antenna is presented. The proposed antenna comprises a plane of three circles coincides with each other C-shaped rectangular slot element with another inverted C-shaped shaped rectangular slot introduced inside circular patch which offer tri band. The impedance bandwidth can be tuned by changing the ground plane geometry parameters (length and/or its width). The overall size of the antenna is 26mm×22mm×0.8mm including finite ground feeding mechanism. The antenna operates in tri bands which are 5.9-6.1 GHz, 7.2-7.4 GHz and 9.1-9.3 GHz. Stable Omni-directional radiation patterns in the desired frequency band have been obtained. The proposed geometry was practically realised and tested its parameters. Measured data fairly agree with the simulated results.

References

Antennas With Modified Ground Planes” IEEE transactions on antennas and propagation, vol. 61, no. 4, april 2013

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Microstrip Antenna, Finite Ground, and Monopole Antenna.