Abstract

This article presents a CPW fed capacitive coupled circular shaped monopole antenna. Ground dimensions of the geometry are used to tune the proposed antenna’s input impedance (impedance bandwidth). Furthermore, these ground dimensions can be used to make antenna operating either in ultra wideband or multiband mode. Besides these dimensions, the capacitive gap introduced on the circular stub will also decide the working of antenna as either wideband or multiband operation. Capacitive gap may be placed at any point on the circular stub. In this work we investigated its effect at three different places i.e., lower end, at the center, and at the upper end of the geometry. More than 100% (2-12GHz band) impedance bandwidth was achieved for UWB antenna design. For multiband antenna design presented, triple bands with impedance bandwidth of 76. 58, 35. 73, and 23. 11% respectively were obtained. Similar results were obtained for all the cases studied. Measured characteristics fairly agree with the simulated results.

References

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Index Terms

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Keywords

Microstrip Antennas  Capacitive Coupling  and Wideband Antennas