Abstract

In this paper a microstrip transmission line fed compact monopole antenna for the wide-band (2.5 GHz - 11 GHz) communication system is designed and its performance is verified. In particular, we have simulated four types of wideband monopole antennas: rectangular, modified rectangular, circular and modified circular disk monopole antennas. Simple rectangular microstrip lines are used for feeding the monopole antennas. This compact monopole antenna designed works well for the whole UWB frequency band 3-10.6GHz from the IE3D simulation results. The compact antenna has the good performance including wideband impedance matching, reliable radiation pattern at all the frequencies. The novel antenna presented in this paper is expected to find application in future UWB system.

References

- X. H. Wu and Z. N. Chen, “Comparison of planer dipoles in UWB”


**Index Terms**

Computer Science  
Wireless Communications
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Monopole antenna  microstrip-transmission line  Ultra-wideband (UWB)