Abstract

In this paper a design of triple band one turn helical antenna without ground plain for center frequency of 2.4 GHz, 3.6 GHz, and 5.4 GHz is discuss. These frequencies are selected such that the antenna radiate for continuous band of 2 GHz to 6.8 GHz frequency with variable gain. The purpose of this novel design is to enhance the gain as well as bandwidth. The triple band is achieved by three concentric helix of circumference equal to respective wavelength. The comparative analysis of radiation pattern of each frequency and gain with respect to one turn single helical antenna is done. Gain enhancement is up to 7 dB as compare to one turn single helical antenna and total bandwidth is 2.5 GHz. The antenna design is the prototype model for
axial mode radiation. As it is one turn helical antenna it radiate in normal mode, after increasing the number of turns it will radiate in axial mode

References


Index Terms

Computer Science
Emerging Trends in Technology

Keywords

Triple band  helical antenna  gain  bandwidth