Abstract

Microstrip antennas due to their small profile design take less area. Further they can be modified by two techniques that are introducing defect in ground plane and adding layers to the...
conducting surface in order to improve its gain, VSWR, bandwidth, return loss and directivity. [4] The most novel technique is modifying the ground plane known as Defected Ground Structure. This paper presents the effect of changing the location and size of the defect introduced in ground plane on the characteristics of the rectangular microstrip patch antenna. The antenna is simulated on Duroid substrate with dielectric constant of 2.2 and fed with 50 ohms microstrip line using HFSS software. By introducing the defect in the ground plane and changing its location and size the corresponding changes in the characteristics have been noted for 2.4GHz of resonant frequency.

References


- Microstrip patch antenna with defected ground structure & defected microstrip Structure; Published in “Recent Advances in Microwave Theory and Applications, 2008.” MICROWAVE 2008. International Conference.

- Efficiency enhancement of microstrip patch antenna with defected ground structure; Published in “Recent Advances in Microwave Theory and Applications, 2008.” MICROWAVE 2008. International Conference.


Index Terms

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Keywords
Microstrip Patch Antenna  Defected Ground Structure