Abstract

A microstrip patch antenna for Wi-Max and GSM application is proposed. The antenna has a frequency bandwidth of 1.24 GHz (4.6053 GHz – 5.8481 GHz) for WLAN and Wi-Max and 1.04 GHz (6.124 GHz – 7.16 GHz) for Satellite application. The microstrip antenna has a planar geometry and consists of a defected ground, a substrate, a patch, a feed, one slot in patch and a defected ground which consists of a pie (?) slot and reduced area from all three sides except the feed side. The basic theory and design are analyzed, and simulation using CST Microwave Studio commercial software is employed to optimize the antenna’s properties. Results show that the proposed antenna has promising characteristics for Wi-Max, WLAN and Satellite application at 5.5 GHz frequency for WiMax, 5.2 GHz and 5.8 GHz for WLAN and 6-7 GHz for satellite application respectively. The microstrip patch antenna has been analysed for various dimensions of ground and slots respectively.

References
Dual Band Defected Ground Microstrip Patch Antenna for WLAN/WiMax and Satellite Application


Index Terms

Computer Science Wireless Communications

Keywords

Defected Ground Structure Wi-max Communication Standard Wlan Communication Standard And Cst Microwave Studio