

Small Rectangular Parasitic Plane With Diamond Patch Antenna For WLAN Application

Abstract

The design and experimental demonstrations of a microstrip patch antenna for broadband WLAN application are presented. The physical parameters of the antenna, including based on a diamond patch, antenna input impedance, antenna thickness and small parasitic plane as the ground plane dimensions, are studied. The influence of various parameters on antenna characteristics has been investigated using simulation software Microwave Office (MWO) and experimental results. Comparisons with measured results on fabricated antenna structures are provided for simulation validation. These results are very useful in the design of WLAN operations in the 2.4 GHz bands.

Author Keywords

Broadband antenna; Microstrip antennas; Parasitic plane; Patch antenna; Small ground plane