

A DUAL BAND PLANAR MONOPOLE ANTENNA WITH INVERTED-M PARASITIC PLANE

Abstract

Introduction of parasitic plane as additional radiator helps to produce desired resonant frequencies, while helping to minimize the size of the antenna. A dual-band monopole antenna with parasitic plane is designed to satisfy dual-band applications, namely UMTS and WLAN 802.11. This work is an effort to investigate the effect of employing an inverted M-shaped parasitic plane, which introduces double slits in the monopole structure. The antenna parametric analysis of the antenna configuration was performed using experimental method. Results simulated and measured shows good correlation and the antenna is verified to be working in a dual band mode.