

This paper describes the effect of inserting a rectangular shape defected ground structure (DGS) into the ground plane of the conventional rectangular microstrip patch antenna (CRMPA). The performances of the CRMPA are characterized by varying the dimensions of the rectangular slot (RS-DGS) and also by locating the RS-DGS at specific position. Simulation results have verified that the CRMPA including RS- DGS had improved the CRMPA without RS-DGS. The return loss (RL) enhances approximately of 100 %, and gain improvement of 0.8 dB