In this paper, authors proposed a new design of DGS to improve the characteristics of microstrip antenna for the use of satellite communication using L band frequencies for communication. This proposed antenna is designed at 1.78GHz (L Band). To achieve a very important bandwidth and efficiency enhancement author proposed symmetrical parallel plates shaped DGS in the ground plane. This symmetrical DGS on the other side of the patch increases the fringing field which consequently increased the parasitic capacitance. This coupling of patch and ground made the bandwidth and directivity enhanced from the RMPA without DGS.

Index Terms

Computer Science Wireless

Keywords

Microstrip antenna, return loss, efficiency, bandwidth.