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(57) Abstract :

The present invention is related to a novel rectangular microstrip antenna. Particularly, the disclosure of the present invention discloses a new and improved rectangular microstrip antenna (RMA) design with improving different aspects of rectangular microstrip antenna including use of different techniques. It presents an improved designed at S - band frequency of around 3.80 GHz and are fabricated using low cost FR4 dielectric material having $\epsilon_r = 4.4$ for two different thickness of dielectric material (0.16 & 0.24 cm). The plurality numbers of slits on the radiating patch edges of rectangular microstrip antenna is introduced which appear to have discontinuity with the microstrip transmission line and provide transverse component of current, which generates a longitudinal component of the magnetic field and can be modeled as series inductance

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