

Investgament of a rectangular cavity-backed antenna excited by a probe

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Abtract

A rectangular cavity-backed slot antenna excited by a probe is investigated in this paper. The analysis method is the Method of Moments. The effect of the finite-size ground plane is characterized by using the uniform theory of diffraction. The numerical results of radiation pattern for infinite and finite sizes of the ground plane are illustrated. The amplitude of diffraction for various distances between slot and the edge of the ground plane is also shown.