

## Estimation of Spurious Radiation from Microstrip Etches Using Closed-Form Green's Functions

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The problem of spurious radiation from electronic packages is considered in this paper by investigating the power radiated from microstrip etches that are excited by arbitrarily-located current sources, and terminated by complex loads at both ends. The first step in the procedure is to compute the current distribution on the microstrip line by using the method of moments (MoM). Two novel contributions of this paper are: (i) employing the recently-derived closed-form Green's functions in the spatial domain that permit an efficient computation of the elements of the MoM matrix; (ii) incorporating complex load terminations in a convenient manner with virtually no increase in the computation time. The computed current distribution is subsequently used to calculate the spurious radiated power and the result is compared with that derived by using an approximate, transmission line analysis.

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