Abstracts

Microstrip Open-End and Gap Discontinuities in a Substrate-Superstrate Structure

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Overlays (superstrates) are of practical use in a variety of microstrip circuit applications. This article presents the analysis, modeling of microstrip open-end, gap discontinuities in a substrate-superstrate structure using the numerical solution of integral equations. Good accuracy is achieved by adopting semi-infinite, subdomain mode expansion functions, with a transverse coordinate dependence obtained from a two-dimensional infinite fine analysis. A parametric study of the material layer effects on radiation, surface wave losses, of the fringing fields at the discontinuities is also performed.

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