Abstracts

Modeling of Coplanar Stripline Discontinuities

R.N. Simons, N.I. Dib and L.P.B. Katehi. "Modeling of Coplanar Stripline Discontinuities." 1996 Transactions on Microwave Theory and Techniques 44.5 (May 1996 [T-MTT]): 711-716.

The paper presents a technique to obtain lumped equivalent circuit models for typical coplanar stripline (CPS) discontinuities such as an open circuit, a short circuit, and a series gap in one of the strip conductors and gives their element values as a function of the discontinuity physical dimensions for a specific substrate. The model element values are determined from the discontinuity scattering parameters which are de-embedded from the measured scattering parameters using a thru-reflect-line (TRL) algorithm. In addition, the resonant frequency of a spur-slot is presented as a function of the spur length. The experimental results are validated by data obtained using the finite-difference time-domain (FDTD) technique.

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