Abstracts

Modeling of Planar Circuits Including the Effect of Space-Varying Surface Impedances

A. Janhsen and V. Hansen. "Modeling of Planar Circuits Including the Effect of Space-Varying Surface Impedances." 1991 Microwave and Guided Wave Letters 1.7 (Jul. 1991 [MGWL]): 158-160.

The calculation of microstrip circuits including the effect of lumped impedances can be done by describing the lumped elements mathematically with the help of A-functions. This approach proceeds on the assumption of impedances with infinite small extension in one dimension. This approach is generalized for impedances of finite extend. Therefore space-varying surface impedances are introduced that are incorporated into the mixed space-spectral domain analysis. The circuit is embedded in layered media and is fed by an arbitrary number of planar lines. Examples for microstrip lines with an absorbing impedance region are given.

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