Abstracts

A conducting sheet model for efficient wide band FDTD analysis of planar waveguides and circuits

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A simple wide band equivalent circuit for the surface impedance of conducting sheets is introduced into the three dimensional Yee (1966) FDTD scheme. The model is based on the plane skin effect, thus the frequency dependence of losses and of the inner inductivity is included. Stability considerations are presented as well as numerical results for the attenuation coefficient of microstrip and coplanar waveguides in comparison to reference data.

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