# Abstracts

## Full-Wave Description of Propagation and Losses in Quasi-Planar Transmission Lines by Quasi-Analytical Solution

*J.-W. Tao, G. Angenieux and B. Flechet. "Full-Wave Description of Propagation and Losses in Quasi-Planar Transmission Lines by Quasi-Analytical Solution." 1994 Transactions on Microwave Theory and Techniques 42.7 (Jul. 1994, Part I [T-MTT]): 1246-1253.*

In this paper is presented a full-wave description of propagation and losses for some quasi-planar transmission lines by using a quasi-analytical solution. This solution is derived from a recently proposed modified transverse resonance method (MTRM), in which an analytical preprocessing has been introduced. The quasi-static contribution is obtained by an entirely analytical solution, so the resultant system of linear equations is very efficient. Furthermore, the resistive boundary conditions as well as the complex substrate permittivity are taken into account in an intrinsic manner, leading to an accurate determination of dielectric and conductor losses in lossy transmission lines. Theoretical and experimental results are presented for some commonly used quasiplanar structures.

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