# Abstracts

## New High-Frequency Circuit Model for Coupled Lossless and Lossy Waveguide Structures

*N. Fache and D. De Zutter. "New High-Frequency Circuit Model for Coupled Lossless and Lossy Waveguide Structures." 1990 Transactions on Microwave Theory and Techniques 38.3 (Mar. 1990 [T-MTT]): 252-259.*

A coupled transmission line model is proposed describing the two fundamental modes of any two-conductor (above a ground plane or shielded) dispersive or nondispersive lossless waveguide system. The model is based on a power-current formulation of the impedances but does not need an a priori supposition about the power distribution over each transmission line. In the second part of the paper the analysis is extended to lossy structures and to the multiconductor situation. Impedance calculations for a typical coupled microstrip configuration are used to illustrate the approach.

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