# Abstracts

## A Frequency Dependent Solution for Microstrip Transmission Lines

*E.J. Denlinger. "A Frequency Dependent Solution for Microstrip Transmission Lines." 1971 Transactions on Microwave Theory and Techniques 19.1 (Jan. 1971 [T-MTT]): 30-39.*

Theoretical and experimental results of "open" microstrip propagation on both a pure dielectric and a demagnetized ferrite substrate are presented. The theory enables one to obtain the frequency dependence of phase velocity and characteristic impedance, and also to obtain the electromagnetic field quantities around the microstrip line. It utilizes a Fourier transform method in which the hybrid-mode solutions for a "fictitious" surface current at the substrate-air interface are summed in such a way as to represent the fields caused by a current distribution that is finite only over the region occupied by the conducting strip and is assumed equal to that for the quasi-static case.

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