Abstracts

Hybrid-Mode Analysis of Planar Transmission Lines with Arbitrary Metallization Cross Sections

Z. Ma, E. Yamashita and S. Xu. "Hybrid-Mode Analysis of Planar Transmission Lines with Arbitrary Metallization Cross Sections." 1993 Transactions on Microwave Theory and Techniques 41.3 (Mar. 1993 [T-MTT]): 491-497.

The problem of planar transmission lines of arbitrary metallization cross sections is solved by using the generalized transverse resonance technique combined with the mode-matching procedure. Analyses are carried out on the dispersion characteristics of microstrip lines, finlines and coplanar waveguides with trapezoidal strip cross sections. Numerical results verify the versatility and accuracy of this method, and show that the profiles of the metallizations in miniaturized MMIC guiding structures give marked effects on the transmission properties.

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