

## Dispersion Characteristics of Moderately Thick Microstrip Lines by the Spectral Domain Method

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The influence of the metallization thickness on the propagation characteristics of the microstrip lines is modeled by utilizing the computationally efficient spectral domain method with an approximate Green's function. The Green's function is based on the current and charge distribution at the top and bottom surfaces of the microstrips. The calculated effective dielectric constants and impedances are plotted for single and coupled microstrip lines as a function of frequency. It is seen that the effective dielectric constants obtained from resonance measurements are in good agreement with the calculated values for moderately thick ( $t/W \sim 0.15$ ) single and coupled lines.

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