

## Lagrangian Formulation of a Linear Microstrip Resonator: Theory and Experiment

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*H. How, A. Widom and C. Vittoria. "Lagrangian Formulation of a Linear Microstrip Resonator: Theory and Experiment." 1991 Transactions on Microwave Theory and Techniques 39.4 (Apr. 1991 [T-MTT]): 660-665.*

The electromagnetic scattering properties of a linear microstrip resonator are formulated utilizing a Lagrangian approach. The resonator design includes a center microstrip separated from the source and output loads by dielectric gaps. The gaps of the resonator are represented by capacitively coupled pi-networks, whose capacitance values are fitted by experimental data. Calculated and measured reflection coefficients of linear microstrip resonators are compared and general agreements are found between theory and experiments.

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