Abstracts

Aperture Coupling Between Microstrip and Resonant Cavities

D.S. James, G.R. Painchaud and W.J.R. Hoefer. "Aperture Coupling Between Microstrip and Resonant Cavities." 1977 Transactions on Microwave Theory and Techniques 25.5 (May 1977 [T-MTT]): 392-396.

This paper presents a simple analysis for the coupling between microstrip and a cavity through an aperture located in the substrate ground plane. The analysis is based on Wheeler's equivalent-energy concept for small-hole coupling and an approximate parallel-plate waveguide model for the microstrip. The theory appears adequate for most design purposes, and has been used successfully in the design of stabilizing cavities for experimental 12-GHz low-noise FET oscillators.

❑ Return to main document.