Abstracts

Study of the influence of grounding for microstrip resonators

T. Ishizaki, T. Kitamura, M. Geshiro and S. Sawa. "Study of the influence of grounding for microstrip resonators." 1997 Transactions on Microwave Theory and Techniques 45.12 (Dec. 1997, Part I [T-MTT]): 2089-2093.

The influence of ground terminal shape on the resonant frequency of a microstrip resonator is investigated through numerical simulations and experiments. Resonators are one of the basic components of very small high-dielectric stripline filters, named the laminated-planar filter. The resonant frequencies are calculated by means of the finite-difference time-domain (FDTD) method and compared with experimental results. It is also shown that the resonant frequency is directly related to the square root of its line inductance when the resonator is regarded equivalently as a series LC circuit.

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