# Abstracts

## Hybrid-Mode Analysis of Coupled Microstrip-Slot Resonators

*K. Kawano. "Hybrid-Mode Analysis of Coupled Microstrip-Slot Resonators." 1985 Transactions on Microwave Theory and Techniques 33.1 (Jan. 1985 [T-MTT]): 38-43.*

An advanced microwave and millimeter-wave integrated circuit element, that is, a coupled microstrip resonator with a tuning slot, or a coupled microstrip-slot resonator, has been developed. As speciaf cases, a microstrip-slot resonator, coupled microstrip resonator, and microstrip resonator have been investigated. A hybrid-mode analysis is presented for obtaining resonant frequencies. It is based upon Galerkin's method in the Forier transform domain. The Green functions in this domain, which are versatile and applicable to other microstrip-slot structures, are shown in simple form. Computed resonant frequencies and measured resonant values are compared for aluminum substrates in the 3-7-GHz frequency range.

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