

Abstracts

On the Study of Microstrip Ring and Varactor-Tuned Ring Circuits

K. Chang, S. Martin, F. Wang and J.L. Klein. "On the Study of Microstrip Ring and Varactor-Tuned Ring Circuits." 1987 Transactions on Microwave Theory and Techniques 35.12 (Dec. 1987 [T-MTT] (1987 Symposium Issue)): 1288-1295.

Equivalent circuits have been derived for microstrip ring and varactor-tuned ring resonators. It was found that the resonant frequency is slightly lower as the coupling gap becomes smaller. Varactor-tuned ring resonators have been developed with up to 15 percent tuning bandwidth using packaged varactor diodes. A dielectrically loaded microstrip ring circuit with lower loss was demonstrated. The results should have many applications in electronically tunable oscillators and filters in both hybrid and monolithic integrated circuits.

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