

Coupling Parameters for a Side-Coupled Ring Resonator and a Microstrip Line (Short Papers)

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A ring resonator side coupled to a microstrip line shows two close but distinct resonance peaks. These are identified as due to even mode (magnetic field), odd-mode (electric field) coupling. Equivalent circuit models for both cases have been proposed, coupling parameters are calculated using piecewise, coupled-line approximations. The calculated coupling coefficients for the two cases are compared with the experimentally measured coupling coefficients, show very good agreement with the models used.

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