Abstracts

Full-Wave Analysis of Radiating Planar Resonators with the Method of Lines

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The method of lines (MoL) is extended to analyze radiating planar resonators by the use of absorbing boundary conditions. For stratified layers, an equivalent network is derived to set up a system equation by simple multiplication of hybrid matrices. As an example, the complex resonant frequency of a microstrip patch is computed and compared to results achieved with the integral equation method in spectral domain. The radiation in the near-field region is depicted by a vector plot of the energy flow, given by the real part of the Poynting vector.

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