Abstracts

Full-wave analysis of radiation from a microstrip amplifier

Tzyy-Sheng Horng and Sung-Mao Wu. "Full-wave analysis of radiation from a microstrip amplifier." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1677-1680 vol.4.

A full-wave analysis is developed to study radiation from a microstrip amplifier. The spectral-domain dyadic Green's function, which takes into account both radiation and surface waves, is used to formulate an integral equation. The method of moments is then employed to find the current densities in microstrips, and subsequently the scattering parameters of the amplifier and the losses due to radiation and surface waves. To verify the numerical results of the scattering parameters, a UHF-band microstrip amplifier matching with single stubs has been implemented and measured. The comparison between simulation and measurement shows excellent agreement.

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