

Computation of Microstrip S-Parameters Using a CG-FFT Scheme

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Several open microstrip structures have been analyzed by using the conjugate gradient fast Fourier transform (CG-FFT) method to solve the electric field integral equation (EFIE). The analysis of the microstrip structure provides equivalent electric currents on the conducting patches. Extensive computation is performed in the spectral domain. Windowing techniques are used to improve the accuracy of the method. New models for the microstrip feed and load have been developed in combination with the CG-FFT method. Results for the S-parameters are compared with the results of other methods and with measurements. The method appears to be accurate and computationally efficient.

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