

Abstracts

A Solution of Coplanar Waveguide with Air-Bridges Using Complex Images

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A new method is proposed to solve general CPW circuits including air-bridges. This method generalizes the integral equation technique to nonplanar structures containing hybrid electric and magnetic currents. It also exploits the full wave complex image technique to efficiently calculate the Green's functions of this structure. The proposed method, therefore, offers a substantial reduction in computer time and memory over many other full wave methods. The accuracy of the proposed method is checked by comparing with available FDTD-theoretical and experimental results for a CPW band reject filter. Using only 92 matching points, our method gave very good agreement.

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