

Abstracts

Multilayer Microstrip Structure Analysis with Matched Load Simulation

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This paper presents a generalized approach to the full-wave analysis of multilayer microstrip structures. One of the structures studied is a new kind of microstrip bandpass filter realized in a double-layer dielectric substrate configuration. This filter demonstrates the use of the third (vertical) dimension in the design of microstrip devices. The approach involves the mixed potential integral equation technique, the Method of Moments, and an S-parameter extraction technique based on a simple form of Matched Load Simulation. Simulated and measured results for various microstrip structures are presented and show good agreement. The approach is demonstrated in detail for 2-port structures, with an outline of how it can readily be extended to the 2-port case.

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