Abstracts

An innovative CAD technique for microstrip filter design

Shen Ye and R.R. Mansour. "An innovative CAD technique for microstrip filter design." 1997 Transactions on Microwave Theory and Techniques 45.5 (May 1997, Part II [T-MTT]): 780-786.

An innovative computer-aided design (CAD) technique for efficient and accurate microstrip filter design is presented in this paper. The technique utilizes full-wave electromagnetic (EM) simulation for the individual circuit elements, while interactions between nonadjacent elements are emulated by introducing circuit components to form extra signal paths. Designs can be accomplished with the accuracy of complete circuit EM simulation while keeping the computational efforts at a cascading simulation level which is crucial for design optimization. The technique has clear physical interpretations and is easy to implement. The authors have successfully applied this technique to design several microstrip filters. Very good filter performance was achieved with good correlation between predicted and measured results.

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