Abstracts

Full-wave CAD of a rectangular waveguide filter with integrated coaxial excitation

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Coaxial waveguides are very commonly used in many microwave subsystems for the connection of various components. Significant size reduction could, therefore, be achieved by integrating the design of the coaxial transition in the computer-aided design (CAD) of microwave filters. In this context, we first discuss in this paper a coaxial transition, which can be efficiently designed interactively using an accurate and efficient CAD procedure. The key elements of the CAD tool developed are then described and a specific example of a microwave filter is discussed. In addition to theory, measured results are also presented, thereby fully validating both the CAD tool and the structures proposed.

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