Abstracts

Rigorous and Efficient Analysis of Hybrid T-Junctions

Although hybrid T-junctions (magic T's) are widely used in common microwave practice, no efficient method of analysis of such junctions is at present available. In this contribution we propose a very simple, yet rigorous and efficient model for the full-wave characterization of these junctions. The model is based on a suitable segmentation of the structure in conjunction with the admittance matrix description. When suitable modal expansions of the Green's functions are considered, a very high numerical efficiency is obtained. Numerical simulations show excellent agreement with measured data.

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