Abstracts

A Versatile Moment Method Solution of the Conventional and Modified Coplanar Waveguide T-Junctions

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The conventional and modified coplanar waveguide (CPW) T-junctions, both symmetric and nonsymmetric, are investigated using the full wave moment method with duality for the electric and magnetic currents. The method is shown to be accurate and computationally more efficient than the FDTD method previously used to solve these T-junctions. Our results show that the dispersion in the S -parameters of the different types of CPW T-junctions investigated can be minimized by a proper choice of the dimensions and locations of the air-bridges. The versatility of the method is demonstrated by its ability to solve complicated CPW structures with different types of air-bridges such as the modified CPW T-junction.

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