Abstracts

Analysis of Compensated Structures in Planar Transmission Lines Using the FDTD Method Incorporating Triangular Subcells

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A FDTD algorithm incorporating triangular subcells has been developed to implement dynamic analysis of compensated structures in planar transmission lines. Curvilinear or slanted metallic surfaces utilized in most compensated circuits are properly modeled by the use of triangular subcells, consequently, the numerical accuracy and computational efficiency are significantly improved. Characteristics of compensated microstrip right-angle bends, T-junctions, and meander lines are investigated, and discussions on the optimal compensation dimensioning rules are presented.

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