Abstracts

Coplanar Waveguide with Top and Bottom Shields in Place of Air-Bridges

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A convenient technique for the elimination of the coupled slot-line mode in coplanar waveguide (CPW) nonsymmetric circuits is proposed. This technique simply uses top and/or bottom ground plane shields and avoids the more costly air-bridges. These shields are easy to fabricate, however, may slightly affect the propagation of the CPW mode in the form of power leakage into the parallel plate TEM mode. This effect can be avoided by restricting operation to lower frequencies. Numerical comparisons between the effect of the shields and the air-bridges on a CPW filter are presented.

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