Abstracts

Design Analysis of Novel Coupling Structures for Multilayer MMIC's (Short Papers)

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Novel monolithic multilayered coupling structures are presented and their performances analyzed. These structures have reduced current crowding at their conductor edges compared to coplanar type coupling structures, and are particularly suitable for integration with multi-dielectric MMIC's. This paper presents the closed-form analytical expressions for the coupler's even and odd mode impedances and coupling coefficients derived using conformal mapping techniques. These direct formulas have the advantage of being well suited for the computer aided design analysis of MMIC's without the need for lengthy numerical modelling techniques.

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