Abstracts

Study of a Novel Planar Transmission Line

N.I. Dib, WP. Harokopus, Jr., P.B. Katehi, C.C. Ling and G.M. Rebeiz. "Study of a Novel Planar Transmission Line." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 623-626.

A new type of monolithic planar transmission line is proposed. This line can operate without the need for via-holes or the use of air-bridges for ground equalization. Furthermore, it has shown the tendency to radiate less than the conventional microstrip or coplanar waveguide (CPW) and can provide a wide range of impedances due to the many available parameters for design. The space domain integral equation method is used to analyze four different discontinuities of the proposed type. A comparison to conventional CPW with respect to radiation shows very good performance.

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