Abstracts

Micro-coplanar striplines-new transmission media for microwave applications

K. Goverdhanam, R.N. Simons and L.P.B. Katehi. "Micro-coplanar striplines-new transmission media for microwave applications." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 1035-1038.

In this paper a new transmission line for microwave applications, referred to here as the Micro-Coplanar Stripline (MCPS), is introduced. The propagation characteristics, such as, characteristic impedance (Z/sub 0/) and effective dielectric constant (/spl epsiv//sub eff/) for a range of MCPS geometries have been modeled using the Finite Difference Time Domain (FDTD) technique and presented here. Also, preliminary experimental results on the performance of an MCPS-Microstrip transition and an MCPS-fed patch antenna are presented. The results indicate several potential applications of the MCPS line in microwave integrated circuit technology.

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