Abstracts

Numerical and experimental characterization of slow-wave microstrip line on periodic ground plane

Chin-Chang Chang, R. Cocciolo, Yongxi Qian and T. Itoh. "Numerical and experimental characterization of slow-wave microstrip line on periodic ground plane." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1533-1536.

A low loss//spl lambda/ slow-wave microstrip transmission line structure is numerically and experimentally investigated. The structure is based on a microstrip line on periodically etched ground plane. Dependency of the slow-wave factor on lattice dimensions is investigated. The slow-wave factor has also been simulated by the FDTD method as numerical verification of the accuracy of the results. Numerical results reveal that the slow-wave microstrip structure can reduce the attenuation//spl lambda/ by 6/spl times/ compared to conventional planar slow-wave structures.

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