Abstracts

Efficient FDTD analysis of conductor-backed CPWs with reduced leakage loss

M. Hotta, Yongxi Qian and T. Itoh. "Efficient FDTD analysis of conductor-backed CPWs with reduced leakage loss." 1999 Transactions on Microwave Theory and Techniques 47.8 (Aug. 1999 [T-MTT] (Mini-Special Issue on Low-Power/Low-Noise Technologies for Mobile Wireless Communications)): 1585-1587.

Leakage loss of the conductor-backed coplanar waveguide (CBCPW) is analyzed by using a novel hybrid two-dimensional finite-difference time-domain/Marquardt curve fitting technique. The validity and high accuracy of the method is confirmed by comparison with other experimental and theoretical results. A modified CBCPW structure with a substrate groove in the backside is proposed, which shows over eight times smaller leakage loss than a normal CBCPW.

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