Abstracts

Quasi-static analysis of shielded microstrip transmission lines with thick electrodes

N.H. Zhu, W. Qiu, E.Y.B. Pun and P.S. Chung. "Quasi-static analysis of shielded microstrip transmission lines with thick electrodes." 1997 Transactions on Microwave Theory and Techniques 45.2 (Feb. 1997 [T-MTT]): 288-291.

An extended point-matching method for analyzing the shielded microstrip transmission lines with thick electrodes has been developed based on the method by Marcuse (1989). This method provides a simple and fast approach to the quasi-static analysis of the structures. The calculated fields are used to estimate the characteristic impedance and effective dielectric constant of the structures. The results agree well with available theoretical results obtained using other methods, such as the finite element method and the boundary element method. This method can be further applied to other microstrip lines widely used in monolithic microwave integrated circuits (MMICs) applications.

❑ Return to main document.