Abstracts

An Universal Model for Lossy and Dispersive Transmission Lines for Time Domain CAD of Circuits

J.I. Alonso, J. Borja and F. Perez. "An Universal Model for Lossy and Dispersive Transmission Lines for Time Domain CAD of Circuits." 1991 MTT-S International Microwave Symposium Digest 91.3 (1991 Vol. III [MWSYM]): 991-994.

An universal equivalent circuit for lossy and dispersive transmission lines is presented. Existing CAD packages, such as SPICE, can be used for its implementation. The starting point for obtaining the model are the analog filters which approximate the forward impulse response and characteristic impedance. The equivalent circuit is used to simulate the effects for pulse propagation on microstrip transmission lines. An examination of the validity of the model is carried out analyzing the response for an example case in the time and frequency domains.

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