

An Equivalent Circuit Model for Terminated Hybrid-Mode Multiconductor Transmission Lines

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An equivalent circuit for terminated hybrid-mode multiconductor transmission lines is presented. Existing CAD packages, such as SPICE, can be used for its implementation. Model parameters can be found from either a TEM or a full-wave analysis of the transmission lines. The equivalent circuit is used to simulate multiconductor microstrip for applications in high-speed integrated circuits. An examination of the validity of the TEM approximation for example cases is carried out in the time and frequency domains.

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