Abstracts

An Equivalent Circuit Model of a Plated-Through-Hole Interconnect for Multilayer Stripline Circuits

G.D. Hopkins and R.K. Feeney. "An Equivalent Circuit Model of a Plated-Through-Hole Interconnect for Multilayer Stripline Circuits." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 959-962.

An empirically-based equivalent circuit model of a plated-through-hole (PTH) interconnect for multilayer stripline circuits is presented. The model, a distributed network of lumped components whose values are functions of the geometry of the irrterconnect, was based on the time domain analysis of extensive empirical data. The measured data were taken from a multilayer stripline test fixture containing 132 different interconnect architectures. The model provides an accurate characterization of the interconnect impedance from 0.045 to approximately 14 GHz. General design guidelines, based on observations of the physical range of configurations studied, are also presented.

❑ Return to main document.