Abstracts

IC package and bonding wire modeling software and its application to RFIC design

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This paper presents an IC package and bonding wire modeling software which generates an equivalent lumped circuit model from physical information of IC package and bonding wires. The resulting model takes into account the effects of frequency-dependent resistance, capacitance, as well as self and mutual inductance. The accuracy of the modeling approach has been verified using a 20-pin lead-less plastic chip carrier package. Furthermore, the application of the IC package characterization software to the design of a 700 MHz CMOS VCO has also been demonstrated.

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