

MODELING OF RF PASSIVE COMPONENTS

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Abstract

This paper deals with the modeling of different types of bond wires like Single Bond Wire, Multiple Bond Wire, Bond Wire Above a Substrate Backed by a Ground Plane, Wire on a Substrate Backed by a Ground Plane Curved Bond Wire etc. The values of inductance, capacitance & resistance, quality factor and mutual inductance have been calculated. Bond wires are used in fabrication of Tee & Pi networks. Therefore, modeling of matching networks using Tee and Pi sections has also been discussed in this paper. The graphs for S parameters (S_{11} , S_{12} , S_{21} , S_{22} etc.) indicating insertion loss, return loss, insertion phase, return phase etc have been plotted for Tee and Pi networks which will help circuit designers to select a matching network.