Abstracts

An equivalent circuit for the double bonding wire interconnection

F. Alimenti, P. Mezzanotte, L. Roselli and R. Sorrentino. "An equivalent circuit for the double bonding wire interconnection." 1999 MTT-S International Microwave Symposium Digest 99.2 (1999 Vol. II [MWSYM]): 633-636 vol.2.

This work proposes a quasi-static model for the double bonding wire interconnection. The wires have been assumed to be parallel, while their curvature has been described with an arc of circle. The model is based on the representation of the structure by means of four sections of a uniform, homogeneous transmission line. The characteristic impedance of this line can be evaluated analytically versus the wire spacing. A double bonding wire structure has been analyzed systematically. In order to determine the accuracy of the model, the same structure has been simulated with the FDTD technique. The quasi-static model has been found to be in good agreement with the full-wave model.

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