Abstracts

Transmission through optically generated inductive grid arrays

D.S. Lockyer, J.C. Vardaxoglou and M.J. Kearney. "Transmission through optically generated inductive grid arrays." 1999 Transactions on Microwave Theory and Techniques 47.7 (Jul. 1999, Part II [T-MTT] (Special Issue on Microwave and Millimeter-Wave Photonics)): 1391-1397.

A technique is developed for generating pseudometallic plasma inductive grid arrays within a semiconductor wafer. The induced plasma elements are defined by a surface impedance which is discussed. Results of an investigation into the transmission properties of a variety of array designs between 16 and 40 GHz are presented. Measurements are performed on a silicon wafer illuminated by an external optical source via a negative image mask.

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