Abstracts

Remote millimeter-wave beam control by the illumination of a semiconductor

G.F. Brand. "Remote millimeter-wave beam control by the illumination of a semiconductor." 2000 Transactions on Microwave Theory and Techniques 48.5 (May 2000 [T-MTT]): 855-857.

The aim of this paper is to use diffraction gratings, produced by projecting a grating pattern onto a semiconductor wafer from a remote location, to control the direction of a reflected beam. We find the conditions for which diffraction at the specular angle is small so that most of the radiation goes into adjacent interference maxima whose directions may be controlled by changing the period of the projected pattern. Some preliminary experiments are reported.

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