Abstracts

Phased Array Operation of a Diode Grid Impedance Surface

L.B. Sjogren, H.-X. Liu, X. Qin, C.W. Domier and N.C. Luhmann, Jr.. "Phased Array Operation of a Diode Grid Impedance Surface." 1994 Transactions on Microwave Theory and Techniques 42.4 (Apr. 1994, Part I [T-MTT]): 565-572.

New experimental results have been achieved with monolithic milllimeter-wave Schottky varactor diode arrays. In addition to improved results for such arrays as reflected beam phase shifters, the capability of the arrays, under voltage control, to steer, focus, and change the polarization state of a beam, has been experimentally demonstrated for the first time. These new results broaden the demonstrated capabilities of millimeter-wave solid state device arrays, furthering the ultimate objective of the construction of complete systems based on quasi-optical power-combining array technology.

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