

Abstracts

Near-field and far-field prediction of quasi-optical grid arrays

T.W. Nuteson, M.B. Steer, S. Nakazawa and J.W. Mink. "Near-field and far-field prediction of quasi-optical grid arrays." 1999 Transactions on Microwave Theory and Techniques 47.1 (Jan. 1999 [T-MTT]): 6-13.

Field profiles, equivalent isotropic radiated power (EIRP), beamwidth, and sidelobe levels of a quasi-optical power-combining grid amplifier structure are obtained using a whole-field electromagnetic analysis of a finite structure. This is efficiently obtained using a mixed spectral- and spatial-domain method-of-moments technique. It is seen that edge effects can have a significant effect on system performance.

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