Abstracts

Quasi-Optical Power Combining of Solid State Sources in K/sub a/-Band

H.M. Harris, A. Torabi, R.W. McMillan, C.J. Summers, J.C. Wiltse, S.M. Halpern and D.W. Griffin. "Quasi-Optical Power Combining of Solid State Sources in K/sub a/-Band." 1993 MTT-S International Microwave Symposium Digest 93.1 (1993 Vol. I [MWSYM]): 159-162.

Planar arrays of HEMTs (high electron mobility transistors) have been fabricated and tested at 37 GHz. The square arrays, consisting of 9 or 16 devices, have been mounted in a Fabry-Perot interferometer, which provides frequency locking. Measured power output and frequency spectra will be given, and will be compared with analytical predictions. Output power is in the milliwatt range, and line width of a typical array is about 50 kHz.

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