Abstracts

A 15 Element Imaging Array for 100 GHz

N.R. Erickson, P.F. Goldsmith, C.R. Predmore and G.A. Novak. "A 15 Element Imaging Array for 100 GHz." 1990 MTT-S International Microwave Symposium Digest 90.2 (1990 Vol. II [MWSYM]): 973-976.

A focal plane imaging array receiver is described which covers the 90-115 GHz range for radio astronomical observations. The 3x5 array uses cryogenic Schottky diode mixers with integrated HEMT IF amplifiers. A cold quasi-optical filter selects the correct sideband, and terminates the image at 20 K. Polarization interleaving is used to minimize the array size on the sky.

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