Abstracts

Microwave and Millimetre-Wave Staring Array Technology

C.J. Alder, C.R. Brewitt-Taylor, R.J. Davis, M. Dixon, R.D. Hodges, L.D. Irving, H.D. Rees, J. Warner and A.R. Webb. "Microwave and Millimetre-Wave Staring Array Technology." 1991 MTT-S International Microwave Symposium Digest 91.3 (1991 Vol. III [MWSYM]): 1249-1252.

Microwave receivers are described incorporating lens-fed planar antennas with semiconductor components integrated on a common substrate, in an area small enough for packing into monolithic two-dimensional arrays. Such receivers have been built to operate at 10 and 35 GHz, including a monolithic silicon 4 x 4 array for 35 GHz. A radar demonstrator has also been built, using a hybrid array, and has shown direction-finding accuracy comparable to monopulse, in a staring array with no moving parts.

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