

Abstracts

A Mixer and Solid State L.O. for a 60 GHz Receiver

L.E. Dickens, J.M. Cotton, Jr. and B.D. Geller. "A Mixer and Solid State L.O. for a 60 GHz Receiver." 1971 G-MTT International Microwave Symposium Digest of Technical Papers 71.1 (1971 [MWSYM]): 188-191.

This paper describes the techniques evolved and the results obtained during the development of solid state RF component for use in the 50-70 GHz frequency range. The program is directed specifically toward the generation of a reliable, low noise, RF "front-end" for a 60 GHz radiometric receiver. The critical components of the "front-end" are the low noise (low conversion loss) mixer and the local oscillator. The mixer consists of GaAs Schottky barrier diodes of very high cut-off frequency; the local oscillator utilizes a silicon avalanche diode oscillator.

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