Abstracts

A Quasi-Optical Receiver with Angle Diversity

W.A. Shiroma, E.W. Bryerton, S. Hollung and Z.B. Popovic. "A Quasi-Optical Receiver with Angle Diversity." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 1131-1134.

A quasi-optical receiver front end consisting of a 10-GHz lens amplifier antenna array and three self-oscillating grid mixers is presented. The lens amplifies incoming plane waves incident from different directions and focuses them to three points where the mixers are placed. Because of the angle-preserving nature of the amplifier, the mixers generate independent IF signals from three incident directions. The resulting angle diversity is useful for reducing multipath fading in communications.

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