

Abstracts

Automatic beam steered active antenna receiver

S. Gupta and V.F. Fusco. "Automatic beam steered active antenna receiver." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 599-602.

This paper describes the design and behaviour of a novel compact self-phased integrated mixer active antenna receive array. The array performs automatic beam steering at low IF frequencies by the use of a pilot carrier inserted in-channel with the information signal. The phasing considerations, advantages, properties and practical considerations of this type of array are outlined. An experimental array based on this technique has been constructed to verify the principles involved. Experimental results on self-mixing and self-phasing performance are included in order to illustrate the automatic beam steering capability of this type of array.

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