

Abstracts

Active integrated antennas (Mar. 2002 [T-MTT])

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This paper provide a review of the active integrated antenna (AIA) technologies. After a brief introduction on the definition and some historical remarks, the paper concentrates on the research effort on the past decades or so. The AIAs are reviewed in its various functions. First, an oscillator-type AIA is presented, followed by very interesting aspects of coupled oscillator arrays for phase control. Use of an AIA concept for efficient RF front ends is described with examples on high-power amplifier AIAs. Next, a phase-conjugation-based retrodirective array is reviewed. Finally, AIA systems for receiving, transmitting, and duplexing are reviewed.

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