Abstracts

Solid State Radar's Path to GaAs

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Significant advances have been achieved recently in the field of solid-state active modules. It is now possible to project improved radar system capabilities for meeting the operational requirements of the next generation aircraft. The active element phased array radar can provide an interdiction/strike aircraft with the ability 1) to terrain sense for low level flight, 2) to detect and counter both air and ground threats, and 3) to navigate and acquire targets for improved weapon delivery. The beam scanning rates and beam shape agility necessary for interleaving these functions are not achievable with conventional mechanically scanned antennas or with phase scanned passive arrays. High performance, low cost solid-state active transmit/receive modules are key to the successful implementation of an active element phased array radar (solid-state radar).

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