

Abstracts

MMW Radar Acquisition System

A. Archdale. "MMW Radar Acquisition System." 1990 MTT-S International Microwave Symposium Digest 90.2 (1990 Vol. II [MWSYM]): 969-972.

This paper describes the hardware and system development which has been carried out in order to evaluate the use of 94GHz radar for the autonomous detection of targets in all clutter backgrounds. Several instrumentation radars, both ground-based and airborne, have been developed for use on field trials. These systems vary in complexity from simple, solid-state, IMPATT transmitter/Gunn assemblies to high power, pulsed, radars with scanning antennas, dual receiver channels and frequency agility. The radar concept of interest is one which is carried by a high-speed military vehicle, flying at low level (30-60m), which has to detect and discriminate, with high probability, groups of mobile armoured targets out to ranges of 3Km.

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