Abstracts

Advanced Solid-State Components for Millimeter Wave Radars

P.M. Schwartz, R.F. Lohr, Jr., K.P. Weller and R.L. Zimmerman. "Advanced Solid-State Components for Millimeter Wave Radars." 1975 MTT-S International Microwave Symposium Digest of Technical Papers 75.1 (1975 [MWSYM]): 261-263.

Low power components for use in W-band (75-100 GHz), chirp radars have been developed. The development was based on a chirp bandwidth of 1.5 GHz. The components included resistive mixers for frequency conversion and generation of the chirp waveform at the radar output frequency and for bandwidth compression in the receiver front end, varactor multipliers, phase stabilized power sources to provide basic RF power for radar processing, and IMPATT amplifiers to boost the output power from the low power levels available from the mixers.

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