

Abstracts

A Noncoherent W-Band Transceiver

R.S. Robertson, R.T. Kihm, E.L. Holzman, J. Poelker and R.L. Bowen. "A Noncoherent W-Band Transceiver." 1988 MTT-S International Microwave Symposium Digest 88.2 (1988 Vol. II [MWSYM]): 1027-1030.

This paper discusses the design, configuration, and performance of a W-band transceiver with a volume of 1 in 3. The transceiver employs a noncoherent chirped waveform for a pulse compression radar application. Other topics include a design procedure for the local oscillator, which employs a theoretical circuit model of the oscillator geometry, and the use of preheat bias control as a means to temperature compensate the chirp spectrum of pulsed IMPATT diode transmitters.

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