

Abstracts

An Advanced Single-Chip Ka-Band Transceiver

E.W. Lin, Y. Kok, G.S. Dow, H. Wang, T.T. Chung, S. Lau, D. Okamuro and B.R. Allen. "An Advanced Single-Chip Ka-Band Transceiver." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 513-516.

This paper describes the development of an advanced single-chip Ka-band transceiver for military applications. The in-fixture measured performance of the transceiver chip will be presented. The transceiver chip monolithically integrates seven separate chips and one filter onto a single chip. In-fixture, the monolithic transceiver chip has demonstrated measured receiver noise figure of less than 6.5 dB across the RF band from 38.0 - 38.5 GHz at an IF of 2.45 GHz under -10 dBm LO drive. The transmitter output power was measured to be greater than 17.5 dBm across the 38.0 - 38.5 GHz band.

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