

# Abstracts

## A 20-50GHz MMIC Amplifier with 21dBm Output Power and its Application as a Frequency Doubler

*H. Kondoh and A. Cognata. "A 20-50GHz MMIC Amplifier with 21dBm Output Power and its Application as a Frequency Doubler." 1993 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 93.1 (1993 [MCS]): 35-38.*

A 20-50GHz MMIC amplifier, designed on a 0.25 $\mu$ m-gate PMODFET production IC process, has demonstrated a  $13 \pm 1.8$  dB gain with greater than 21dBm saturated output power across the band. A traveling-wave-input/power-combined-output configuration developed for the input stage design has facilitated area-efficient broadband impedance matching and also enabled the amplifier to operate as a frequency doubler. More than 10dBm output power was achieved over the 20-50GHz doubled frequency band for 20dBm input power.

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