

Abstracts

Millimeter-Wave IMPATT Power Amplifier/Combiner

H.J. Kuno and D.L. English. "Millimeter-Wave IMPATT Power Amplifier/Combiner." 1976 Transactions on Microwave Theory and Techniques 24.11 (Nov. 1976 [T-MTT] (Special Issue on Millimeter Waves: Circuits, Components, and Systems)): 758-767.

The development of a two-stage millimeter-wave IMPATT power amplifier/combiner is described herein. The driver stage consists of a two-diode hybrid-coupled amplifier and the output stage consists of a four-diode combiner (a pair of hybrid-coupled amplifiers). An output power of 1 W was achieved with a 22-dB small-signal gain and a 6-GHz bandwidth in the 60-GHz range. Design considerations and experimental data are presented in detail.

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