

Abstracts

A GaAs MSI Word Generator Operating at 5 Gbits/s Data Rate

C.A. Liechti, G.L. Baldwin, E. Gowen, R. Joly, M. Namjoo and A.F. Podell. "A GaAs MSI Word Generator Operating at 5 Gbits/s Data Rate." 1982 Transactions on Microwave Theory and Techniques 30.7 (Jul. 1982 [T-MTT] (Joint Special Issue on GaAs IC's)): 998-1006.

This paper describes a monolithic MSI GaAs word generator that operates at data rates from a few bits/s up to 5 Gbits/s. This circuit, with 600 active devices, consists of an 8:1 parallel-to-serial converter, a timing generator, control logic, and ECL-interface networks. The circuit generates multiple 8-bit words with dynamic word-length control. The paper discusses the fabrication technology, the design of the word generator and its building blocks, and the performance of the complete chip.

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