

Abstracts

High-Speed Digital IC Performance Outlook

P.T. Greiling. "High-Speed Digital IC Performance Outlook." 1987 Transactions on Microwave Theory and Techniques 35.3 (Mar. 1987 [T-MTT]): 245-259.

This paper, which is a tutorial on high-speed GaAs digital IC's, was given as one of the 1984-1985 MTT-S Distinguished Microwave Lectures. It reviews GaAs FET technology and issues related to device/ circuit design and fabrication of digital circuits of MSI/LSI complexity operating at gigahertz clock frequencies; discusses limitations of the technology; compares GaAs technology with competing Si bipolar transistors, GaAIAs HEMT, and GaAIAs HBT technologies and projects performance of GaAs digital IC technology in applications where it will have a significant impact on microwave systems.

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