Abstracts

Gigahertz Rate Counter Logic and Clock Generation Using High F/sub T/ Transistors

T. Doak, J. Ville, S. Zuckswert and C.L. Cuccia. "Gigahertz Rate Counter Logic and Clock Generation Using High F/sub T/ Transistors." 1971 G-MTT International Microwave Symposium Digest of Technical Papers 71.1 (1971 [MWSYM]): 184-185.

Gigabit-rate communications will use high speed logic systems which will use gigahertz-rate hi-stable devices for various logic functions including waveform generation. The chief requirement of such devices is the generation of square-wave end steep-rise-front voltage, current, and power functions. This paper will review the long art of bi-stable devices and will compare the features of each including consideration of speed and developed voltage. The impact of new transistors with high F/sub T/'s will be discussed, and experimental counter logic devices will be discussed which count at speeds at one gigahertz, and will include a discussion of experimental signal sources developing waveforms such as square waves, and pseudo random codes at gigahertz rates.

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