Abstracts

Foreword (May 1980 [T-MTT])

P.T. Greiling. "Foreword (May 1980 [T-MTT])." 1980 Transactions on Microwave Theory and Techniques 28.5 (May 1980 [T-MTT] (Special Issue on Gigabit Logic for Microwave Systems)): 441-441.

The next generation of microwave digital systems will require much higher clock frequencies to increase computational speed. Both military and commercial electronics have applications for digital communications with multigigabit-per-second data rates, multi-phase-shift-keyed modulation/demodulation, time multiplexing, frequency division, counting, A/D converters, memories, and frequency and waveform synthesis. During the last several years, significant progress has been made in raising the operating speed of digital microcircuits above the 1-GHz/s level. Advances in silicon IC technology will generate some limited speed improvements, but GaAs IC technology offers a two- to six-times speed improvement for the immediate future and Josephson junction technology projects another two- to three-times speed improvement for the intermediate future.

❑ Return to main document.