Abstracts

GaAs Ultra-High-Speed Prescaler/Phase Frequency Comparator Using LSCFL (Short Papers)

K. Osafune, T. Takada, N. Kato and K. Ohwada. "GaAs Ultra-High-Speed Prescaler/Phase Frequency Comparator Using LSCFL (Short Papers)." 1987 Transactions on Microwave Theory and Techniques 35.10 (Oct. 1987 [T-MTT]): 917-918.

A high-speed, low-power prescaler/phase frequency comparator (PFC) medium scale integration (MSI) circuit for a phase-locked stable oscillator is designed and fabricated using GaAs MESFET low-power source-coupled FET logic (LSCFL) circuitry. The construction of the 1/64 frequency divider prescaler/PFC is designed to obtain high-speed and low-power operation. The fabrication process used is buried p-layer SAINT with a 0.5-μm gate length. The fabricated prescaler/PFC MSI circuit, mounted on a newly developed high-frequency package, operates up to 7.6 GHz with a power dissipation of 730 mW.

❑ Return to main document.