Abstracts

MIMIC-Compatible GaAs and InP Field Effect Controlled Transferred Electron (FECTED) Oscillators

H. Scheiber, K. Lubke, D. Grutzmacher, C.G. Diskus and H.W. Thim. "MIMIC-Compatible GaAs and InP Field Effect Controlled Transferred Electron (FECTED) Oscillators." 1989 Transactions on Microwave Theory and Techniques 37.12 (Dec. 1989 [T-MTT] (1989 Symposium Issue)): 2093-2098.

An MIMIC-compatible transferred electron oscillator is investigated which utilizes the frequency-independent negative resistance of the stationary charge dipole domain that forms in the channel of a MESFET. Devices fabricated from GaAs and InP exhibit 56 mW at 29 GHz and 55 mW at 34 GHz, respectively. CW power levels are somewhat lower (30 mW). These power levels are the highest ever obtained with lateral transferred electron oscillators and FET oscillators.

❑ Return to main document.