

Abstracts

Low-phase-noise low-power IC VCOs for 5-8-GHz wireless applications

H. Jacobsson, S. Gevorgian, M. Mokhtari, C. Hedenas, B. Hansson, T. Lewin, H. Berg, W. Rabe and A. Schuppen. "Low-phase-noise low-power IC VCOs for 5-8-GHz wireless applications." 2000 Transactions on Microwave Theory and Techniques 48.12 (Dec. 2000 [T-MTT] (Special Issue on 2000 International Microwave Symposium)): 2533-2539.

A set of fully integrated voltage-controlled oscillators (VCOs) in the 5-8 GHz frequency range has been designed and manufactured in Si bipolar and Si-SiGe-heterojunction-bipolar-transistor technology. A minimum phase noise of -100 dBc/Hz at 100-kHz off carrier was measured for 2-V supply voltage and 16 mW of power consumption. SiGe VCOs give considerably better phase-noise performance than Si bipolar VCOs for the technologies investigated herein, using similar topologies.

[Return to main document.](#)