

Abstracts

A fully-monolithic SiGe differential voltage-controlled oscillator for 5 GHz wireless applications

J.-O. Plouchart, H. Ainspan, M. Soyuer and A. Ruehli. "A fully-monolithic SiGe differential voltage-controlled oscillator for 5 GHz wireless applications." 2000 Radio Frequency Integrated Circuits (RFIC) Symposium 00. (2000 [RFIC]): 57-60.

A fully integrated and differential SiGe VCO was designed for 5 GHz wireless applications. The measured phase noise is -98 dBc/Hz at 100 kHz offset off the 5 GHz carrier. It has a tuning range of 12.3% with a control voltage from 0 to 3 V, and a figure of merit of more than -180 dBc/Hz. The current drawn from 3 V is 5 mA for the core and 2.2 mA for the output buffers.

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