

Abstracts

A fully integrated CMOS frequency synthesizer for Bluetooth

D. Theil, C. Durdodt, A. Hanke, S. Heinen, S. van Waasen, D. Seippel, D. Pham-Stabner and K. Schumacher. "A fully integrated CMOS frequency synthesizer for Bluetooth." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 103-106.

A low power, fully integrated 2.4 GHz fractional-N frequency synthesizer for Bluetooth in a 0.25 μm CMOS technology is presented. The complete synthesizer, including a fully integrated VCO, consumes 22 mA from a 2.5 V supply. The integrated VCO reaches a phase noise of -133 dBc/Hz at 3 MHz. The synthesizer is designed for a direct $\Sigma\Delta$ -modulation of the PLL.

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