

## A fully-integrated BiCMOS voltage-controlled oscillator for DECT application

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G. Li Puma, O. Kromat, S. Heinen, U. Matter, W. Geppert, D. Theil, P. Schrader and M. Zannoth. "A fully-integrated BiCMOS voltage-controlled oscillator for DECT application." 1999 Radio Frequency Integrated Circuits (RFIC) Symposium 99. (1999 [RFIC]): 113-116.

A voltage-controlled oscillator (VCO) with an integrated inductor and varactor diodes achieves -139 dBc/Hz phase noise at 6.4 MHz frequency offset in the 1880-1900 MHz DECT band. The VCO has 250 MHz tuning range and 125 MHz/V gain which is enough to compensate production tolerances. The monolithic circuit is fabricated in a 0.5  $\mu\text{m}$  25 GHz  $f_{\text{sub T}}$  BiCMOS process.

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