Abstracts

A 0.35 /spl mu/m CMOS 2.5 GHz complementary -G/sub M/ VCO using PMOS inversion mode varactors

R. Bunch and S. Raman. "A 0.35 /spl mu/m CMOS 2.5 GHz complementary -G/sub M/ VCO using PMOS inversion mode varactors." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 49-52.

A fully integrated VCO has been fabricated in a standard single poly 4-metal 0.35 /spl mu/m 3.3 volt digital CMOS process, using a complementary negative G/sub M/ topology. PMOS inversion-mode varactors are used for frequency tuning. A phase noise of -97 dBc/Hz at 100 kHz offset has been measured using a single-ended test setup. The measured tuning range is 16 percent. Unbuffered and buffered versions of the oscillator were fabricated on the same die. The buffered version has an output power of nearly 0 dBm. The unbuffered core of the oscillator has a power dissipation of 35 mW.

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