Title (en)

SINGLE CHIP CMOS TRANSMITTER/RECEIVER AND VCO-MIXER STRUCTURE

Title (de)

EINZELCHIP CMOS SENDER/EMPFÄNGER UND MISCHERSTRUKTUR MIT SPANNUNGSGETSEUERTEM OSZILLATOR

Title (fr)

EMETTEUR/RECEPTEUR MONOPUCE A MOS COMPLEMENTAIRE ET STRUCTURE MELANGEUSE A OSCILLATEUR A FREQUENCE COMMANDEE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0005815A1] A single chip RF communication system and method and a VCO-mixer (130) structure are provided. The RF communication system in accordance with the present invention includes a transmitter (1100) and a receiver (100), an antenna for receiving transmitting RF signals, a PLL (130) for generating multi-phase clock signals having a frequency different from a carrier frequency in response to the multi-phase clock signals and a reference signal having the carrier frequency, a demodulation-mixing unit (140) for mixing the received signal with the multi-phase clock signals having a frequency different from the carrier frequency to output the RF signals having a frequency reduced by the carrier frequency and an A/D converting unit (160) for converting the RF signals from the mixing unit into digital signals. The VCO (130) in accordance with the present invention includes a plurality of differential delay and the mixer includes a differential amplifying circuit (1200A) and combining circuit (1200B). The differential amplifying circuit (1200A) of the multi-phase mixer includes two load resistors (R2, R1) coupled to two differential amplifiers (1200A1, 1200A2) respectively. The combining circuit (1200B) includes bias transistors (1232, 1234), first and second combining circuits coupled to the bias transistors, respectively and a current source coupled to the first and second combining units.

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Citation (search report)

- No further relevant documents disclosed
- See references of WO 0005815A1

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