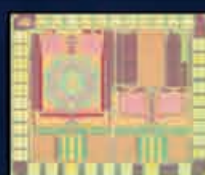
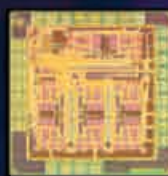
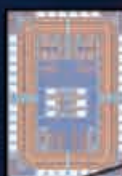
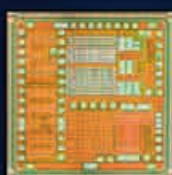
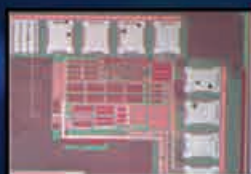
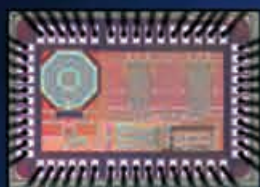


Research Report 2011-2016

State Key Laboratory of Analog and Mixed-Signal VLSI
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ISSCC 2011

- 1 A 0.46mm² 4-dB NF Unified Receiver Front-End for Full-Band Mobile TV in 65nm CMOS
- 2 A 0.024mm² 8-bit 400 MS/s SAR ADC with 2-bit per Cycle and Resistive DAC in 65nm CMOS

ISSCC 2012

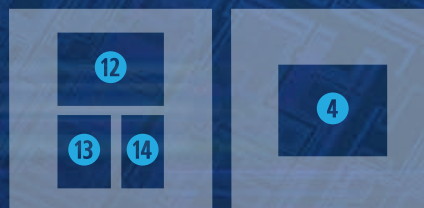
- 3 A 0.016mm² 144 μ W Three-Stage Amplifier Capable of Driving 1-to-15nF Capacitive Load with >0.95MHz GBW

ISSCC 2013

- 4 A 1.7mW 0.22mm² 2.4GHz ZigBee RX Exploiting a Current-Reuse Blixer+Hybrid Filter Topology in 65nm CMOS

ISSCC 2014

- 5 A 0.0013mm² 3.6 μ W Nested-Current-Mirror Single-Stage Amplifier Driving 0.15-to-15nF Capacitive Loads with >62 $^\circ$ Phase Margin
- 6 An RF-to-BB-Current-Reuse Wideband Receiver with Parallel N-Path Active/Passive Mixers and a Single-MOS Pole-Zero LPF
- 7 A 0.5V 1.15mW 0.2mm² Sub-GHz ZigBee Receiver Supporting 433/860/915/960MHz ISM Bands with Zero External Components



ISSCC 2015

- 8 A 5.5mW 6b 5GS/s 4 \times -Interleaved 3b/cycle SAR ADC in 65nm CMOS
- 9 A 2-/3-Phase Fully Integrated Switched-Capacitor DC-DC Converter in Bulk CMOS for Energy-Efficient Digital Circuits with 14% Efficiency Improvement
- 10 A 123-Phase DC-DC Converter-Ring with Fast-DVS for Microprocessors
- 11 A 0.028mm² 11mW Single-Mixing Blocker-Tolerant Receiver with Double-RF N-Path Filtering, S₁₁ Centering, +13dBm OB-IIP3 and 1.5-to-2.9dB NF

ISSCC 2016

- 12 A 0.038mm² SAW-less Multi-Band Transceiver Using an N-Path SC Gain Loop
- 13 A 0.003mm² 1.7-to-3.5GHz Dual-Mode Time-Interleaved Ring-VCO Achieving 90-to-150kHz 1/f³ Phase Noise Corner
- 14 A Handheld 50pM-Sensitivity Micro-NMR CMOS Platform with B-Field Stabilization for Multi-Type Biological/Chemical Assays

ISSCC: IEEE International Solid-State Circuits Conference



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