





River Publishers Series in Electronic Materials, Circuits and Devices

## Selected Topics in RF, Analog and Mixed Signal Circuits and Systems

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## **Description:**

CMOS process technology progress has led to a revolution towards new and innovative integrated circuits and systems. This trend is still moving forward for applications ranging from high-speed wireless and wireline data transfer down to ultra-low-power mobile applications for more interconnected world. The high performance analog and RF circuits and systems are at the heart of all these developments.

Selected Topics in RF, Analog and Mixed Signal Circuits and Systems provides an overview and the state of the art developments on several selected topics in RF, analog and mixed signal circuits and system. The topics include ADC conversion and equalization for high-speed links, clock and data recovery for high speed wireline transmission with speeds in several Gb/s, signal generation for terahertz application, oscillator phase noise fundamentals and analog/digital PLL overview.

Topics covered in the book include:

- Overview of Oscillator Phase Noise
- Clock and Data Recovery in High-Speed Wireline Communication
- Phase Lock Loop Design Techniques
- Terahertz and mm-Wave Signal Generation, Synthesis and Amplification: Reaching the Fundamental Limits
- Equalization and A/D conversion for high-speed links

**Keywords:** Time-Variation, Phase Modulation, Oscillator Phase Noise; Data Recovery, High-Speed Wireline Communication; Analog-to-Digital Converters, High-Speed Links, Terahertz, mm-Wave Signal Generation and A/D Conversion for High-Speed Links