Description:
Driven by advanced CMOS technology, power management units, RF transceivers, and sensors, analog and mixed-signal circuits can now be fully integrated with VLSI digital systems for applications ranging from mobile, internet-of-things (IoT), wearable, and implantable medical devices. Evidently, the circuit- and system-level innovations have pushed the device performance boundaries to become orders of magnitude higher, whilst keeping the same or even lower power consumption.

Selected Topic in Power, RF, and Mixed-Signal ICs provides a practical overview and state-of-the-art advancements on several selected topics in the areas of power, RF, and mixed-signal integrated circuits and systems.

Topics covered in the book include:
- Very-High-Frequency DC-DC Switching Converters
- Analog and Digital Low-Dropout Regulators
- Analog and Digital Sub-Sampling Frequency Synthesizers
- Hybrid ADC Architecture with Digital Assisted Techniques
- CMOS Image Sensors and Their Biomedical Applications
- CMOS Temperature Sensors
- CMOS Millimeter-Wave Power Amplifiers
- Zigbee/BLE Transmitter for IoT Applications

Keywords: DC-DC Switching Converters, Analog and Digital Regulators, Analog and Digital Frequency Synthesizers, Hybrid ADC Architecture, CMOS Image Sensors, CMOS Temperature Sensors, CMOS Millimeter-Wave Power Amplifiers, Zigbee, BLE Transmitter, IoT Applications