



River Publishers Series in Electronic Materials, Circuits and Devices

## Introduction to Wireless Communication Circuits

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**ISBN:** 9788793609716

**e-ISBN:** 9788793609709

**Available From:** May 2018

### Description:

Over the past decade, tremendous development of Wireless Communications has changed human life and engineering. Considerable advancement has been made in design and architecture of related RF and microwave circuits. *Introduction to Wireless Communication Circuits* focusses on special circuits dedicated to the RF level of wireless communications. From oscillators to modulation and demodulation, and from mixers to RF and power amplifier circuits, all are presented in a sequential manner. A wealth of analytical relations is provided in the text alongside various worked out examples. Related problem sets are given at the end of each chapter. Basic concepts of RF Analog Circuit Design are developed in the book.

Technical topics discussed include:

- Wireless Communication System
- RF Oscillators and Phase Locked Loops
- Modulator and Demodulator Circuits
- RF Mixers
- Automatic Gain Control and Limiters
- Microwave Circuits, Transmission Lines and S-Parameters
- Matching networks
- Linear Amplifier Design and Power Amplifiers
- Linearization Techniques

This textbook is intended for advanced undergraduate and graduate students, as well as RF Engineers and professionals

**Keywords:** Wireless Communication, RF Circuits, Microwaves, Receiver, Transmitter, Oscillator, Oscillator Topology, PLL, RF Amplifier, RF Mixer, Modulator, Demodulator, Impedance Matching, Smith Chart, AGC, Limiter, Transmission Lines, Scattering Parameters, Power Amplifier, Nonlinearity, Large Signal, Linearization

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