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Nota di contenuto	Signal Processing for RF Circuit Impairment Mitigation; Contents; Preface; 1 Introduction; 1.1 A Basic Wireless Communication System; 1.2 Spatial Diversity Transmissions; 1.3 Dual-Polarization Transmissions; 1.4 Impairment Mitigation by Signal Processing; Reference; 2 I/Q Impairment and Compensation Techniques; 2.1 Introduction; 2.2 Some Preliminaries; 2.2.1 Direct-Conversion Quadrature Modulator; 2.2.2 Direct-Conversion Quadrature Demodulator; 2.3 Modulator I/Q Impairment Compensation; 2.3.1 I/Q Impairment Modeling; 2.3.2 Frequency-Independent Impairment Compensation. 2.3.3 Frequency-Dependent Impairment Compensation2.4 Demodulator I/Q Impairment Compensation; 2.4.1 I/Q Impairment Modeling; 2.4.2 Frequency-Independent Impairment Compensation; 2.4.3 Frequency-Dependent Impairment Compensation; 2.5 Conclusion; References; 3 Nonlinear PA Linearization; 3.1 Introduction; 3.1.1 PA Nonlinearity; 3.1.2 Linearization Approaches; 3.2.
Sommario/riassunto	A wireless communication system employs a radio frequency (RF) wave to transmit information bearing signals. In modern digital communication systems, sophisticated modulation techniques are developed to modulate information onto an RF carrier waveform, so as to transmit more information. This new book presents signal processing techniques for reducing impairments of analog and RF

circuits in wireless communications systems. Engineers, researchers, and students will find full coverage of the topic, including vector modulators, power amplifiers, vector demodulators, group delay distortion in analog/RF filters, digital beamforming networks, and dual polarization systems. Several applications are discussed, including both single carrier and multi-carrier scenarios.