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Nota di contenuto	RF CIRCUIT DESIGN; CONTENTS; PREFACE TO THE SECOND EDITION; PART 1 DESIGN TECHNOLOGIES AND SKILLS; 1 DIFFERENCE BETWEEN RF AND DIGITAL CIRCUIT DESIGN; 1.1 Controversy; 1.1.1 Impedance Matching; 1.1.2 Key Parameter; 1.1.3 Circuit Testing and Main Test Equipment; 1.2 Difference of RF and Digital Block in a Communication System; 1.2.1 Impedance; 1.2.2 Current Drain; 1.2.3 Location; 1.3 Conclusions; 1.4 Notes for High-Speed Digital Circuit Design; Further Reading; Exercises; Answers; 2 REFLECTION AND SELF-INTERFERENCE; 2.1 Introduction; 2.2 Voltage Delivered from a Source to a Load 2.2.1 General Expression of Voltage Delivered from a Source to a Load when << y/4 so that Td 02.2.2 Additional Jitter or Distortion in a Digital Circuit Block; 2.3 Power Delivered from a Source to a Load; 2.3.1 General Expression of Power Delivered from a Source to a Load; 2.3.1 General Expression of Power Delivered from a Source to a Load; 2.3.4 Additional Distortion; 2.3.5 Additional Interference; 2.4 Impedance Conjugate Matching; 2.4.1 Maximizing Power Transport; 2.4.2 Power Transport without Phase Shift; 2.4.3 Impedance Matching

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	Network; 2.4.4 Necessity of Impedance Matching 2.5 Additional Effect of Impedance Matching2.5.1 Voltage Pumped up by Means of Impedance Matching; 2.5.2 Power Measurement; Appendices; 2.A.1 VSWR and Other Reflection and Transmission Coefficients; 2.A.2 Relationships between Power (dBm), Voltage (V), and Power (W); Reference; Further Reading; Exercises; Answers; 3 IMPEDANCE MATCHING IN THE NARROW-BAND CASE; 3.1 Introduction; 3.2 Impedance Matching by Means of Return Loss Adjustment; 3.2.1 Return Loss Circles on the Smith Chart; 3.2.2 Relationship between Return Loss and Impedance Matching 3.2.3 Implementation of an Impedance Matching Network3.3 Impedance Matching Network Built by One Part; 3.3.1 One Part Inserted into Impedance Matching Network in Series; 3.3.2 One Part Inserted into the Impedance Matching Network in Parallel; 3.4 Impedance Matching Network Built by Two Parts; 3.4.1 Regions in a Smith Chart; 3.4.2 Values of Parts; 3.4.3 Selection of Topology; 3.5 Impedance Matching Network Built By Three Parts; 3.5.1 """" Type and ""T"" Type Topologies; 3.5.2 Recommended Topology; 3.6 Impedance Matching When ZS Or ZL Is Not 50 _; 3.7 Parts In An Impedance Matching When ZS Or ZL Is Not 50 _; 3.7 Parts In An Impedance Matching When ZS Or ZL Is Not 50 _; 3.7 Parts In An Impedance Matching Network Appendices3.A.1 Fundamentals of the Smith Chart; 3.A.2 Formula for Two-Part Impedance Matching Network; 3.A.3 Topology Limitations of the Two-Part Impedance Matching Network; 3.A.4 Topology Limitation of Three Parts Impedance Matching Network; 3.A.5 Conversion between _ and T Type Matching Network; 3.A.6 Possible _ and T Impedance Matching Networks; Reference; Further Reading; Exercises; Answers; 4
	Matching Networks; Reference; Further Reading; Exercises; Answers; 4 IMPEDANCE MATCHING IN THE WIDEBAND CASE; 4.1 Appearance of Narrow and Wideband Return Loss on a Smith Chart; 4.2 Impedance Variation Due to the Insertion of One Part Per Arm or Per Branch 4.2.1 An Inductor Inserted into Impedance Matching Network in Series
Sommario/riassunto	Summarizes the schemes and technologies in RF circuit design, describes the basic parameters of an RF system and the fundamentals of RF system design, and presents an introduction of the individual RF circuit block design. Forming the backbone of today's mobile and satellite communications networks, radio frequency (RF) components and circuits are incorporated into everything that transmits or receives a radio wave, such as mobile phones, radio, WiFi, and walkie talkies. RF Circuit Design, Second Edition immerses practicing and aspiring industry professionals in the complex wor