1. Record Nr. UNINA9910785000703321 Autore Dobkin Daniel Mark **Titolo** The RF in RFID [[electronic resource]]: passive UHF RFID in practice // Daniel M. Dobkin Pubbl/distr/stampa Amsterdam; ; Boston, : Elsevier / Newnes, c2008 **ISBN** 1-281-07152-8 9786611071523 0-08-055402-4 Descrizione fisica 1 online resource (505 p.) Collana Communications engineering series Disciplina 621.384 Radio frequency identification systems Soggetti Radio frequency Wireless communication systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Front Cover; The RF in RFID; Copyright Page; Table of Contents; Nota di contenuto Chapter 1. Introduction; 1.1 What, When, and Where, Wirelessly; 1.2 Why Would You Read This Book?; 1.3 What Comes Next?; 1.4 Acknowledgments: 1.5 Further Reading: Chapter 2. History and Practice of RFID; 2.1 It All Started with IFF; 2.2 Making it Cheap; 2.3 Making and Selling: Tracking Big Stuff; 2.4 Tracking Small Stuff: AutoID and The Web of Things; 2.5 RFID Systems and Terminology; 2.6 Types of RFID; 2.7 The Internet of Things and UHF RFID; 2.8 Further Reading; 2.9 Exercises; Chapter 3. Radio Basics For UHF RFID 3.1 Electromagnetic Waves 3.2 Describing Signal Voltage and Power; 3.3 Information, Modulation, and Multiplexing; 3.4 Backscatter Radio Links; 3.5 Link Budgets; 3.6 Effect of Antenna Gain and Polarization on Range; 3.7 Propagation in the Real World; 3.8 Capsule Summary: Chapter 3; 3.9 Further Reading; 3.10 Exercises; Chapter 4. UHF RFID Readers; 4.1 A Radio's Days (and nights); 4.2 Radio Architectures; 4.3 Radio Components; 4.4 RFID Transmitters; 4.5 RFID Receivers; 4.6 Digital-Analog Conversion and Signal Processing; 4.7 Packaging and

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Sommario/riassunto

This book includes a survey of all RFID fundamentals and practices in the first part of the book while the second part focuses on UHF passive technology. This coverage of UHF technology and its components including tags, readers, and antennas is essential to commercial implementation in supply chain logistics and security. Dr. Dobkin is targeting an audience which has an electrical engineering background but has not yet dealt with RFID. To this end, he will be very careful to illustrate all concepts and detail his explanations meticulously. In this way he will bring the reader along or