1. Record Nr. UNINA9910824296903321 Autore Shearer Findlay **Titolo** Power management in mobile devices / / Findlay Shearer Pubbl/distr/stampa Burlington, MA,: Newnes, c2008 **ISBN** 9786611112394 9781281112392 1281112399 9780080556406 008055640X Edizione [1st edition] Descrizione fisica 1 online resource (337 p.) Collana Communications engineering series Disciplina 621.384 Soggetti Electronic digital computers - Power supply Wireless communication systems - Power supply Personal communication service systems - Power supply Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front Cover; Power Management in Mobile Devices; Copyright Page; Contents: Preface: About the Author: Chapter 1. Introduction to Power Management in Portable Personal Devices: 1.1 Power Trends: 1.2 Mobile Devices and Applications; 1.2.1 Cellular Phones; 1.2.2 Portable Media Players; 1.2.3 Portable Digital Audio Players; 1.2.4 Portable Navigation Devices; 1.3 Cellular Handsets: Deeper Dive; 1.3.1 Cellular System Overview; 1.3.2 Evolution of Cellular Systems; 1.3.3 Cellular Handset Teardown: 1.3.4 Seamless Mobility: Connectivity: 1.4 Summary; Chapter 2. Hierarchical View of Energy Conservation 2.1 Issues and Challenges 2.1.1 Closing the Technology Gaps; 2.1.2 Always On, Always Connected: Paradox of the Portable Age; 2.1.3 Balancing Battery Life with Performance and Cost; 2.2 Power versus Energy Types; 2.2.1 The Elements Power Consumption; 2.2.2 Elements of Dynamic and Static Power; 2.3 Hierarchy of Energy Conservation Techniques: 2.4 Low Power Process and Transistor Technology: 2.4.1 Process Technology Scaling; 2.4.2 Transistors and Interconnects; 2.5 Low Power Packaging Techniques; 2.5.1 Introduction; 2.5.2 Systems-

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Sommario/riassunto

Sealed Lead Acid...Nickel Cadmium...Lithium Ion...How do you balance battery life with performance and cost?This book shows you how!Now that ""mobile"" has become the standard, the consumer not only expects mobility but demands power longevity in wireless devices. As more and more features, computing power, and memory are packed into mobile devices such as iPods, cell phones, and cameras, there is a large and growing gap between what devices can do and the amount of energy engineers can deliver. In fact, the main limiting factor in many portable designs is not hardware or soft