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Nota di contenuto	-- List of Figures xiii -- List of Tables xix -- About the Authors xxi -- Preface xxiii -- 1 Introduction 1 -- 1.1 What is UWB? 3 -- 1.2 Why UWB? 7 -- 1.2.1 Higher Channel Capacity and Power Efficiency 7 -- 1.2.2 Little Interference to and from Narrowband Systems 9 -- 1.2.3 Unmet WPAN Demand 10 -- 1.2.4 High-precision Ranging 11 -- 1.3 UWB Market 11 -- 1.3.1 Clutter of Cables 11 -- 1.3.2 Networking Shortcomings 12 -- 1.3.3 UWB Fills a Gap 13 -- 1.3.4 W-USB 16 -- 1.3.5 High Rate Bluetooth 17 -- 1.3.6 IP over UWB 18 -- 1.3.7 What to Expect 19 -- 1.4 UWB Standardization 20 -- 1.4.1 IEEE 20 -- 1.4.2 WiMedia versus UWB Forum 21 -- 1.4.3 Ecma International 22 -- 1.5 UWB Applications 23 -- 1.6 Summary Features 33 -- 1.7 Terminology 36 -- References 42 -- 2 Worldwide Regulations 43 -- 2.1 United States 44 -- 2.2 Japan 47 -- 2.3 Korea 50 -- 2.4 Europe 51 -- 2.5 China 56 -- 2.6 Summary 56 -- References 59 -- 3 Physical Layer 61 -- 3.1 Feature Summary 64 -- 3.1.1 Packet Radio 64 -- 3.1.2 MB-OFDM 65 -- 3.1.3 Error Correction and Variable Data Rate 65 -- 3.2

WiMedia OFDM 65 -- 3.2.1 Frequency-selective Fading 66 -- 3.2.2 Mathematical Framework 71 -- 3.2.3 Extensions to OFDM 73 -- 3.2.3.1 The Zero Postfix and Further ISI Reduction 73 -- 3.2.3.2 Zero, Pilot, and Guard Subcarriers 77 -- 3.2.4 Spreading 80 -- 3.2.5 Modulation 82 -- 3.2.6 Tone Nulling 86 -- 3.2.7 Summary 87 -- 3.3 PMD 87 -- 3.3.1 WiMedia Band Plan 88 -- 3.3.2 Frequency Hopping 88 -- 3.3.3 Common Clock Reference 91 -- 3.3.4 Transmit Power Control 92 -- 3.4 Scrambling, Interleaving, and Error Correction 92 -- 3.4.1 Scrambling 93 -- 3.4.2 Convolutional Coding 94 -- 3.4.3 Header Protection: Header Check Sequence and Reed / Solomon Coding 97 -- 3.4.4 Interleaving 98 -- 3.4.5 Summary 102 -- 3.5 Packet Structure 103 -- 3.5.1 Standard and Burst Modes 104 -- 3.5.2 PLCP Preamble 107 -- 3.5.3 PLCP Header 110 -- 3.5.4 Modulated PSDU 116 -- 3.6 Performance Requirements 118 -- 3.6.1 S/N Measurements and Terminology 118 -- 3.6.2 Transmitter Error Specifications 122. 3.6.2.1 Transmit Spectral Mask 122 -- 3.6.2.2 Transmitter Constellation Error 125 -- 3.6.3 Receiver Performance Specifications 128 -- 3.6.4 Signal Quality Measurements 130 -- 3.6.5 Channels and Channel Modeling 130 -- 3.7 Ranging 131 -- 3.8 PHY Services and Interfaces 134 -- 3.8.1 Management Services 136 -- 3.8.2 Transmit and Receive Services 136 -- 3.8.3 CCA Service 139 -- References 139 -- 4 Medium Access Control Sublayer 141 -- 4.1 Feature Summary 143 -- 4.1.1 Peer-to-peer 143 -- 4.1.2 Ad Hoc 144 -- 4.1.3 Two-hop Networking 144 -- 4.1.4 Prioritized Contention Access (PCA) 144 -- 4.1.5 Distributed Reservation Protocol (DRP) 145 -- 4.1.6 Mobility 146 -- 4.1.7 Beaconing 146 -- 4.1.8 Band Groups and Time-Frequency Channels (TFC) 147 -- 4.1.9 Acknowledgment Policies 148 -- 4.1.10 Reservation Policies 149 -- 4.1.11 Security 150 -- 4.1.12 Hibernation 151 -- 4.1.13 Fragmentation, Aggregation 152 -- 4.1.14 Ranging 152 -- 4.2 Superframes and Timeslots 152 -- 4.3 Device Address 155 -- 4.4 Frame Formats 156 -- 4.4.1 Beacon Frames 159 -- 4.4.1.1 BPOIE 164 -- 4.4.1.2 DRP IE 165 -- 4.4.1.3 ASIE 169 -- 4.4.2 Control Frames 170 -- 4.4.3 Command Frames 173 -- 4.4.4 Data Frames 173 -- 4.4.5 Aggregated Data Frames 174 -- 4.5 Frame Processing 175 -- 4.5.1 Frame Reception and Transmission 175 -- 4.5.2 Acknowledgments and Retransmissions 177 -- 4.5.3 Frame Transaction and Inter-frame Spacing 178 -- 4.5.4 Fragmentation and Aggregation 179 -- 4.5.5 Channel Selection 181 -- 4.6 Synchronization 182 -- 4.6.1 Sources of Timing Error 182 -- 4.6.2 BPST Alignment 183 -- 4.6.3 Guard Time 185 -- 4.7 Power Conservation 186 -- 4.7.1 Power Modes 187 -- 4.7.2 Power States 188 -- 4.8 Beacon Protocol 189 -- 4.8.1 BP 189 -- 4.8.2 Beacon Loss or Collision 192 -- 4.8.3 Beacon Contraction 193 -- 4.8.4 Alien Beacons 194 -- 4.8.5 BP Merging 195 -- 4.9 DRP 198 -- 4.10 PCA 203 -- 4.11 MAC Policies 210 -- 4.11.1 Reservation Size Limitations 211 -- 4.11.2 Reservation Compaction 215 -- 4.11.3 PCA Reservation Rules 224. 4.12 Security 224 -- 4.13 Ranging 228 -- References 232 -- 5 Protocol Adaptation Layer 233 -- 5.1 CW-USB 235 -- 5.1.1 USB versus CW-USB 236 -- 5.1.2 Frame Formats 242 -- 5.1.3 Transaction Groups 244 -- 5.1.4 Device Beaconing 246 -- 5.1.5 Data Flow and Connection Process 247 -- 5.1.6 Dual Role Device 248 -- 5.1.7 Association Model 249 -- 5.1.8 Implementation and Interface Issues 251 -- References 255 -- Appendix A Acronyms 257 -- Appendix B WiMedia Alliance Membership 263 -- Index 269.

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## Sommario/riassunto

UWB (ultra-wideband) has been investigated for many decades but only recently has it become commercially viable. With the advent of WiMedia UWB technology and its associated standard specifications, the stage is set for the next generation of WPAN applications to take root. WiMedia

UWB focuses on the ECMA-368 standard. Both PHY layer and MAC sublayers specified in this standard are explained in great detail. The book offers not only the facts about the requirements of the standard, but also the motivation and logic behind them. To give a comprehensive perspective of the UWB technology to the reader, other interrelated topics are also examined in this book. These include the history of UWB and its recent standardization attempts; UWB applications and advantages; UWB spectrum allocation and regulations around the world; UWB platform clients: Certified Wireless USB (CW-USB), Bluetooth, and WLP (WiMedia Link layer Protocol, which enables Internet Protocol over UWB); as well as some important implementation issues and considerations. As the first application of WiMedia UWB, CW-USB is given a special and more comprehensive treatment. This book is ideal for any engineer or engineering managers who are expecting to either develop a solution based on UWB or to integrate it with other devices. It will also be of interest to researchers who require an overview or an interpretation of the technology. . One of the first books to describe the WiMedia standards (PHY and MAC) in detail . A comprehensive approach to de-obfuscating the entire WiMedia UWB technology, from the PHY through the MAC, the MAC clients, the applications, and the regulations . Includes a description of the CW-USB standard and its relation to WiMedia MAC . Provides an up-to-date view of the UWB spectrum allocations and associated regulations around the world . Derived from hands-on experiences in WiMedia UWB standards and system development efforts.

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