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	 2.4.2 Pre ADC Signal Conditioning; 2.4.3 Analogue to Digital Conversion; 2.4.4 Receive Pulse Shape Filtering 2.4.5 Automatic Gain Control and Reference Point2.4.6 Additional Receiver Signal Processing Functions; 2.5 Transmitter Baseband Design; 2.5.1 Baseband Modulation; 2.5.2 Pre Digital to Analogue Conversion Signal Processing; 2.5.3 Digital to Analogue Conversion; 2.5.4 Post Conversion Processing; 2.6 Transmitter RF Design; 2.6.1 RF Up Conversion; 2.6.2 Transmitter Direct up Conversion; 2.6.3 Transmitter IF Based up Conversion; 2.6.4 Transmitter Spurious and Noise Emissions; 2.6.5 Transmitter Direct up Conversion; 2.6.6 Key Isolation Issues; 2.6.7 Transmitter Power Control and Calibration 2.6.8 The Power Amplifier2.6.9 Power Efficiency Enhancement; 2.7 Future Trends; 3 Physical Layer Chip Rate Processing; 3.1 Introduction; 3.1.1 Code Division Multiple Access; 3.1.2 The WCDMA Air Interface; 3.1.3 Role of Chip Rate Processing; 3.2 Spreading and Scrambling; 3.2.1 Spreading; 3.2.2 Scrambling; 3.3 Physical Channels; 3.3.1 Synchronization and Channel Estimation Channels; 3.3.2 Cell Broadcast Channels; 3.3.3 Dedicated Channels; 3.3.4 Packet and Indicator Channels; 3.3.5 Overview of Physical Channel Timing; 3.4 The Receiver; 3.4.1 Overview; 3.4.2 RAKE Receiver Overview 3.4.3 RAKE Fingers3.4.4 The Combiner; 3.4.5 RAKE Architectures; 3.4.6 RAKE Control; 3.5 Cell Search; 3.5.1 P-SCH Detection; 3.5.2 S-SCH Detection; 3.5.3 Cell ID Detection; 3.6.4 P-CCPCH Transmit Diversity Status Identification; 3.6 Power Control; 3.6.1 Inner Loop Power Control; 3.6.2 Outer Loop Power Control; 3.6.1 Inner Loop Power Control; 3.6.2 Outer Loop Power Control; 3.6.3 Other Power Control Mechanisms; 3.7 Handover; 3.7.1 Introduction; 3.7.2 Soft and Softer Handover; 3.7.3 Hard Handover; 3.7.4 SSDT; 3.8 Transmit Diversity in the Downlink; 3.8.1 Background; 3.8.2 Open Loop Transmit Diversity; 3.9 Physical Layer Procedures
Sommario/riassunto	WCDMA (Wideband Code Division Multiple Access), an ITU standard derived from code division multiple access (CDMA) is officially known as IMT-2000 direct spread. WCDMA is a third generation mobile wireless technology offering much higher data speeds to mobile and portable wireless devices than commonly offered in today's market. WCDMA is a relatively new technology and there is little information in the public domain about specific design issues. The proposed book will discuss UMTS/WCDMA from the perspective of a potential development engineer, who may have experience of GSM but none of WCDMA