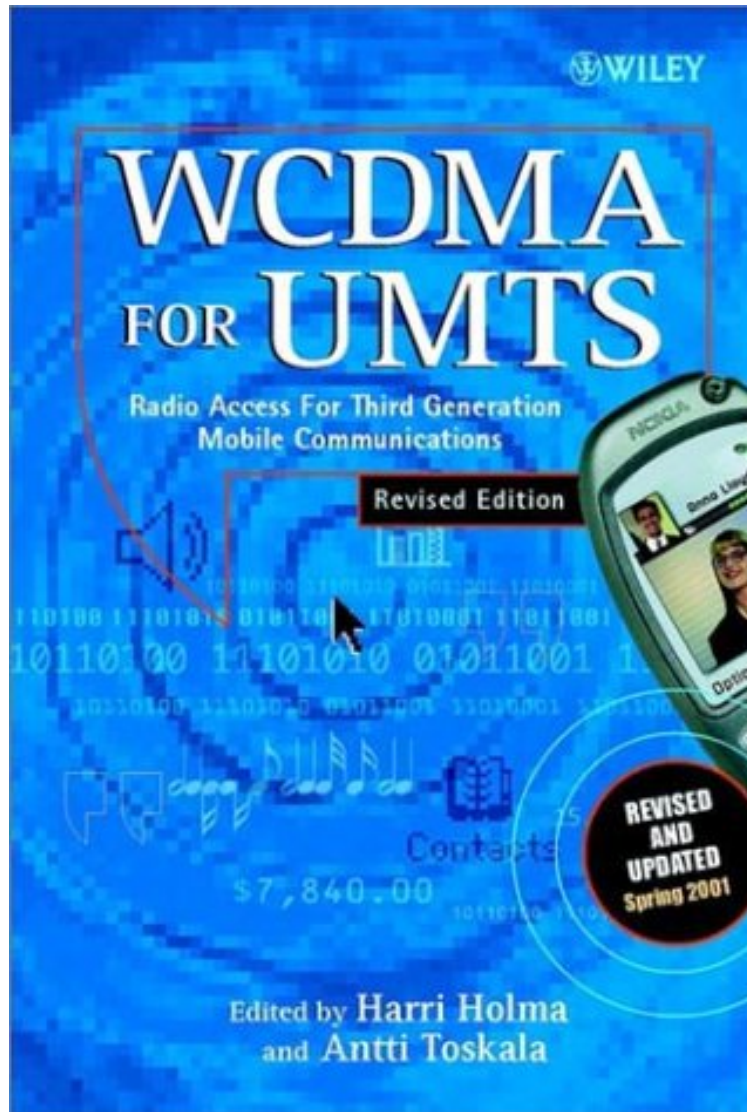


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WCDMA for UMTS provides a complete picture of the Wideband CDMA (Code Division Multiple Access) air interface of the 3rd generation cellular systems - UMTS (Universal Mobile Telecommunications Systems). WCDMA is designed for multimedia communications including high quality images and video, and access to services with high data rates. These capabilities will create new business opportunities for manufacturers, operators and for the providers of content and applications. * Explains the key parts of the WCDMA standard and provides guidelines for its efficient use * Presents network dimensioning and coverage and capacity planning of WCDMA * Introduces radio resource management algorithms in the WCDMA network * Examines the coverage and capacity of WCDMA up to 2Mbps using numerous simulation results * Introduces the TDD (Time Divisions Duplex) mode * Discusses the co-existence of TDD and FDD (Frequency Divisions Duplex) and highlights their main differences Now includes the main modifications made to the 3GPP standard up until the end of 2000 and features the following new material: * Reference terminal classes * Current status of UMTS licensing * Capacity upgrade paths and capacity per km² * Inter-frequency handovers and inter-system handovers to GSM * Antenna diversity gain measurements in the WCDMA experimental system Written by leading experts in the field, this practical approach to the key features in WCDMA will have wide-ranging appeal to Research and Development Engineers, Practising Engineers, Cellular Operators, Technical Managers and Students on Telecommunications courses.

.com As wireless communications technologies evolve, Wideband Code Division Multiple Access (WCDMA) seems a strong candidate for providing multimedia to the handset, as well as Universal Mobile Telecommunications Services (UMTS)--which is to say common wireless communications standards over most of the world. WCDMA for UMTS sets out to decipher the standards documents of the Third Generation Partnership Project (3GPP). Specifically, this book deals with the 3GPP documents on Frequency Division Duplex (FDD) and Time Division Duplex (TDD) for Universal Terrestrial Radio Access (UTRA). This book should prove valuable to readers who plan to implement WCDMA in hardware designs or service offerings. A series of engineering problems make up the backbone of the book, and each part of the deployment process is explained via text and calculations. For example, in the discussion on planning a radio network for WCDMA service provision, the book explains precisely how to take into account requirements (for quality of service, user capacity, and coverage) and conditions (such as terrain). Readers get formulas into which they can plug relative traffic predictions for voice, real-time data, non-real-time data, and overhead. There's also an explanation of how to interpret the formula output for deploying antennae. This is a serious engineering handbook for those who are involved in deploying WCDMA. --David Wall Topics covered: Wideband Code Division Multiple Access (WCDMA)--what it is, and (especially) how to implement it in a wireless network. Radio interface protocols, packet traffic, and network planning all are covered. From the Back Cover WCDMA for UMTS provides a complete picture of the Wideband CDMA (Code Division Multiple Access) air interface of the 3rd generation cellular systems - UMTS (Universal Mobile Telecommunications Systems). WCDMA is designed for multimedia communications including high quality images and video, and access to services with high data rates. These capabilities will create new business opportunities for manufacturers, operators and for the providers of content and applications. * Explains the key parts of the 3GPP/WCDMA standard and provides guidelines for its efficient use * Presents network dimensioning and coverage and capacity planning of WCDMA * Introduces radio resource management algorithms in the WCDMA network * Examines the coverage and capacity of WCDMA up to 2Mbps using numerous simulation results * Introduces the TDD (Time Divisions Duplex) mode * Discusses the co-existence of TDD and FDD (Frequency Divisions and Duplex) and highlights their main differences Written by leading experts in the field, this practical approach to the key features in WCDMA will have wide-ranging appeal to Research and

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