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4.10 OFDM as a user-multiplexing and multiple-access scheme  
4.11 Multi-cell broadcast/multicast transmission and OFDM; Chapter 5 Wider-band 'single-carrier' transmission; 5.1 Equalization against radio-channel frequency selectivity; 5.2 Uplink FDMA with flexible bandwidth assignment; 5.3 DFT-spread OFDM; Chapter 6 Multi-antenna techniques; 6.1 Multi-antenna configurations; 6.2 Benefits of multi-antenna techniques; 6.3 Multiple receive antennas; 6.4 Multiple transmit antennas; 6.5 Spatial multiplexing; Chapter 7 Scheduling, link adaptation and hybrid ARQ  
7.1 Link adaptation: Power and rate control  
7.2 Channel-dependent scheduling; 7.3 Advanced retransmission schemes; 7.4 Hybrid ARQ with soft combining; Part III: HSPA; Chapter 8 WCDMA evolution: HSPA and MBMS; 8.1 WCDMA: brief overview; Chapter 9 High-Speed Downlink Packet Access; 9.1 Overview; 9.2 Details of HSDPA; 9.3 Finer details of HSDPA; Chapter 10 Enhanced Uplink; 10.1 Overview; 10.2 Details of Enhanced Uplink; 10.3 Finer details of Enhanced Uplink; Chapter 11 MBMS: multimedia broadcast multicast services; 11.1 Overview; 11.2 Details of MBMS; Chapter 12 HSPA Evolution; 12.1 MIMO  
12.2 Higher-order modulation  
12.3 Continuous packet connectivity; 12.4 Enhanced CELL\_FACH operation; 12.5 Layer 2 protocol enhancements; 12.6 Advanced receivers; 12.7 Conclusion; Part IV: LTE and SAE; Chapter 13 LTE and SAE: introduction and design targets; 13.1 LTE design targets; 13.2 SAE design targets; Chapter 14 LTE radio access: an overview; 14.1 Transmission schemes: downlink OFDM and uplink SC-FDMA; 14.2 Channel-dependent scheduling and rate adaptation; 14.3 Hybrid ARQ with soft combining; 14.4 Multiple antenna support; 14.5 Multicast and broadcast support; 14.6 Spectrum flexibility  
Chapter 15 LTE radio interface architecture

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Sommario/riassunto

This very up-to-date and practical book, written by engineers working closely in 3GPP, gives insight into the newest technologies and standards adopted by 3GPP, with detailed explanations of the specific solutions chosen and their implementation in HSPA and LTE. The key technologies presented include multi-carrier transmission, advanced single-carrier transmission, advanced receivers, OFDM, MIMO and adaptive antenna solutions, advanced radio resource management and protocols, and different radio network architectures. Their role and use in the context of mobile broadband access in gen

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