
Moray Rumney (Editor) - July 20, 2009

Site Editor's Note: We are pleased to present the serialization of Chapter 2 of the just published book, LTE and the Evolution to 4G Wireless: Design and Measurement Challenges. The book is published by Agilent Technologies and is available through John Wiley & Sons, Inc. It goes deeply into the new 3GPP LTE cellular technology, from both the technical and practical point of view, before its projected deployment in 2010. Written by Agilent's measurement experts, this book offers valuable insight into the LTE air interface at the physical layer.

Chapters also cover the upper layer signaling and system architecture evolution (SAE). Basic concepts such as MIMO and SC-FDMA, the new uplink modulation scheme, are introduced and explained, and the authors dig into the challenges of verifying the designs of the receivers, transmitters and protocols of LTE systems. The latest information on RF and signaling conformance testing is delivered by authors participating in the 3GPP standards committees.

The book's chapters include:

- Chapter 1: LTE Introduction
- Chapter 2: Air Interface Concepts
- Chapter 3: Physical Layer
- Chapter 4: Upper Layer Signaling
- Chapter 5: System Architecture Evolution
- Chapter 6: RF Design and Verification Challenges
- Chapter 7: Chapter 1: Conformance Test
- Chapter 8: Looking Towards 4G: LTE-Advanced

You can see the detailed Table of Contents [here](#), and the biographies of the numerous section authors [here](#). (You can also download an extensive list of relevant acronyms [here](#).)

We are presenting Chapter 2, "Air Interface Concepts", in six parts, as follows:

- Section 2.1, Radio Frequency Aspects, click [here](#)
- Section 2.1 (con't), Radio Frequency Aspects, click [here](#)
- Section 2.2, Orthogonal Frequency Division Multiple Access, will be posted July 27, 2009.
- Section 2.3, Single-Carrier Frequency Division Multiple Access, will be posted August 3, 2009.
- Section 2.4, Multi-Antenna Operation and MIMO, will be posted August 10, 2009.
- Section 2.4 (con't), Multi-Antenna Operation and MIMO, will be posted August 17, 2009.

To order the book and more (ISBN: 978-0-470-68261-6, hardcover, 448 pages, June 2009) click [here](#).