Mobile Handset Design

Description: The evolution of mobile communication standards presents numerous challenges in mobile handset design. Designers must continue to turn out handsets that maintain high device performance and air interface compatibility, while at the same time shrink power consumption, form factors, and costs.

Mobile Handset Design is uniquely written to equip professionals and students with a complete understanding of how a mobile phone works, and teaches the skills to design the latest mobile handsets. Das walks readers through mobile phone operating principles, system infrastructure, TDMA–FDMA–CDMA–OFDMA techniques, hardware anatomy, software and protocols, and internal modules, components, and circuits. He presents all problems associated with mobile wireless channels and recommends corresponding design solutions to overcome those issues. Mobile RF front-end, digital baseband design techniques, and associated trade-offs are also covered. Das also discusses the productization aspects and reviews new research developments for different mobile phone systems over generations.

- Teaches basic working principles of legacy and 4G mobile systems
- Vividly illustrates and explains all key components and the anatomy of mobile phones
- Explains all hardware and software blocks, from principle to practice to product
- Discusses key design attributes such as low power consumption and slim form factors
- Moves through all topics in a systematic fashion for easy comprehension
- Presentation files with lecture notes available for instructor use

This book is essential for practicing software, hardware and RF design engineers and product managers working to create innovate, competitive handsets. Mobile Handset Design is also ideal for fresh graduates or experienced engineers who are new to the mobile industry, and is well-suited for industry veterans as a handy reference.

Lecture materials for instructors available at company website

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