
Description: The impending advent of GSM in the early 1990s triggered massive investment that revolutionised the capability of DSP technology. A decade later, the vastly increased processing requirements and potential market of 3G has triggered a similar revolution, with a host of start-up companies claiming revolutionary technologies hoping to challenge and displace incumbent suppliers.

This book, with contributions from today's major players and leading start-ups, comprehensively describes both the new approaches and the responses of the incumbents, with detailed descriptions of the design philosophy, architecture, technology maturity and software support.

- Analysis of SDR baseband processing requirements of cellular handsets and basestations
- 3G handset baseband – ASIC, DSP, parallel processing, ACM and customised programmable architectures
- 3G basestation baseband – DSP (including co-processors), FPGA-based approaches, reconfigurable and parallel architectures
- Architecture optimisation to match 3G air interface and application algorithms
- Evolution of existing DSP, ASIC & FPGA solutions
- Assessment of the architectural approaches and the implications of the trends.

An essential resource for the 3G product designer, who needs to understand immediate design options within a wider context of future product roadmaps, the book will also benefit researchers and commercial managers who need to understand this rapid evolution of baseband signal processing and its industry impact.

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