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Note generali	Description based upon print version of record.
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Nota di contenuto	System Requirements for Radio Receivers in Wireless Communications -- Receiver Architectures -- Direct Conversion Receivers -- Circuit Implementations.
Sommario/riassunto	This book is based on my doctoral thesis at the Helsinki University of Technology. Several different projects during five years guided me from the basics of the RF IC design to the implementations of highly integrated radio receiver chips. Sharing time and effort between IC and system issues is not always straightforward. I have been lucky to follow both topics and share experiences with diligent and enthusiastic people having different specialities. As a result, this book will cover a wide range of different topics needed in the design of highly integrated radio receivers. Experiences from the first receiver prototypes for the third generation cellular systems form the basis of this book. Most of the issues are directly related to the early proposals of European and Japanese standardization organizations. For example, the chip rate was originally set to 4.096 Mcps in a wide-band CDMA channel. I have kept

that number in the book in most of the examples although it has been later changed to 3.84 Mcps. I hope that the readers will accept that and the possible other incompatibilities to the latest specifications. At least in the research phase the changes even in the most essential requirements are definitely not a rare incident and IC designers should be able to react and modify their designs as soon as they can.

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