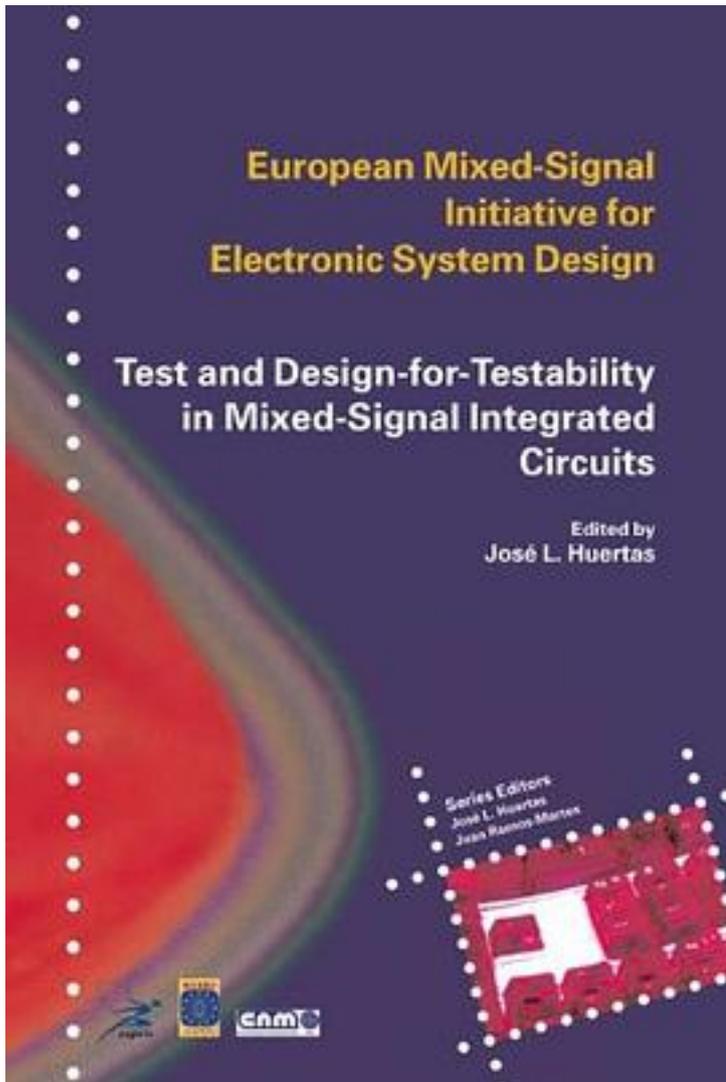


Test and Design-for-testability in Mixed-signal Integrated Circuits



[Test and Design-for-testability in Mixed-signal Integrated Circuits_下载链接1](#)

著者:Diaz, Jose Luis Huertas 编

出版者:

出版时间:2010-11

装帧:

isbn:9781441954220

Test and Design-for-Testability in Mixed-Signal Integrated Circuits deals with test and design for test of analog and mixed-signal integrated circuits. Especially in System-on-Chip (SoC), where different technologies are intertwined (analog, digital, sensors, RF); test is becoming a true bottleneck of present and future IC projects. Linking design and test in these heterogeneous systems will have a tremendous impact in terms of test time, cost and proficiency. Although it is recognized as a key issue for developing complex ICs, there is still a lack of structured references presenting the major topics in this area. The aim of this book is to present basic concepts and new ideas in a manner understandable for both professionals and students. Since this is an active research field, a comprehensive state-of-the-art overview is very valuable, introducing the main problems as well as the ways of solution that seem promising, emphasizing their basis, strengths and weaknesses. In essence, several topics are presented in detail. First of all, techniques for the efficient use of DSP-based test and CAD test tools. Standardization is another topic considered in the book, with focus on the IEEE 1149.4. Also addressed in depth is the connecting design and test by means of using high-level (behavioural) description techniques, specific examples are given. Another issue is related to test techniques for well-defined classes of integrated blocks, like data converters and phase-locked-loops. Besides these specification-driven testing techniques, fault-driven approaches are described as they offer potential solutions which are more similar to digital test methods. Finally, in Design-for-Testability and Built-In-Self-Test, two other concepts that were taken from digital design, are introduced in an analog context and illustrated for the case of integrated filters. In summary, the purpose of this book is to provide a glimpse on recent research results in the area of testing mixed-signal integrated circuits, specifically in the topics mentioned above. Much of the work reported herein has been performed within cooperative European Research Projects, in which the authors of the different chapters have actively collaborated. It is a representative snapshot of the current state-of-the-art in this emergent field.

作者介绍:

目录:

[Test and Design-for-testability in Mixed-signal Integrated Circuits_下载链接1](#)

标签

Test

Mixed-signal

IC

DFT

评论

[Test and Design-for-testability in Mixed-signal Integrated Circuits_下载链接1](#)

书评

[Test and Design-for-testability in Mixed-signal Integrated Circuits_下载链接1](#)