

Preface

Welcome to the Open Core Protocol (OCP) world. OCP is a compact interface, designed to accelerate IP core-to-core interface design efforts. It has many features that are each individually simple. Collectively, they allow designers to create interfaces with arbitrary intricacy. With OCP, the only limit seems to be your imagination.

The OCP International Partnership (OCP-IP) oversees OCP's standardization and evolution efforts. There are many international participants in OCP-IP, and OCP-IP membership is available at several participating levels. That said, OCP has achieved global popularity based on its simplicity and the fact that the specification is available at no charge for research purposes. You will want to visit OCP-IP's Web site at www.ocpip.org for all the details.

This book necessarily contains excerpts from the OCP 3.0 Standard. Hence, I am happy to provide the following required permission release:

Excerpts used by permission from the Open Core Protocol Specification 3.0, Document Revision 1.0, Copyright 2000-2009, OCP-IP, All Rights Reserved.

What readers will find different from the standard is an introduction and content development strategy that monotonically ramps from the simplest possible OCP interface to OCP 3.0's coherency extensions. Consequently, this book is not meant to be a reference. Rather, it is a learning guide that should be able to assist you in understanding OCP within a few dedicated hours. At least, that's the hope. As OCP continues to evolve, you will want to stay current with its latest features. And, you can easily do that by obtaining the latest OCP specification by joining OCP-IP. Besides, this book does not give you all the information necessary to design and verify an interface – only the standard does and will.

We have attempted to produce as accurate a book as possible. But inevitable, unintentional errors probably lurk unnoticed. If you find a discrepancy between this book and the current OCP standard, please defer to the standard – apologies in advance.

Finally, a variety of wonderful people have brought this book to life. At Springer US, Elizabeth Dougherty's efforts proved indefatigable and Charles Glaser's assistance in times of duress was essential. Charles is a superior editor to work with; jump at the chance to work with him.

At OCP-IP, Joe Basques' and Ian Mackintosh's efforts were deeply appreciated. At Sonics, Inc., special thanks go to Drew Wingard, David O'Brien, and John Ivie for their support, both past and present. OCP's James Aldis at Texas Instruments provided key insights.

Finally, deepest thanks to Dr. Erno Salminen, Lehtonen and Timo D. Hämäläinen of Tampere University of Technology's Department of Computer Systems for contributing a chapter.

Best of luck in your design efforts and know that OCP provides a fast-track to SOC designs. It's really a great tool to have in your design war chest.

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Introduction to Open Core Protocol

Fastpath to System-on-Chip Design

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2012, XVI, 164 p., Hardcover

ISBN: 978-1-4614-0102-5