

FPGA-Based Prototyping Methodology Manual



Freescale Semiconductor Corporation

“In addition to our stated goals of protocol testing, our FPGA system prototype delivered project schedule acceleration in many other areas, proving its worth many times over. And perhaps most important was the immeasurable human benefit of getting engineers involved earlier in the project schedule, and having all teams from design to software to validation to applications very familiar with the product six months before silicon even arrived. The impact of this accelerated product expertise is hard to measure on a Gantt chart, but may be the most beneficial.”

Scott Constable
Design Engineer

LSI Corporation

“The modular nature of the Synopsys HAPS systems coupled with our Design-for-Prototyping approach has allowed LSI Corporation to do pre-silicon development on multiple SoC projects so far. If you are looking to benefit from FPGA-Based Prototyping, then the FPMM is a great place to start, for management and engineers alike. Even experienced prototypers will find the FPMM a source of inspiration and guidance. I wish we’d had this when we started.”

Brian Nowak
Senior Integration Engineer

NVIDIA Corporation

“At NVIDIA we have benefited from FPGA-Based Prototyping for over a decade. In all cases, we have been able to validate functionality and exercise software months in advance of the first silicon being available. The FPMM book and online community will educate our industry in the methodology of prototyping and share the latest techniques in implementation and leading edge technologies. I recommend the FPMM to anybody considering prototyping as a validation vehicle for developing silicon products.”

Fernando Martinez
Senior Engineer, Mobile R&D

STMicroelectronics

“FPGAs provide a platform for SoC development and verification unlike any other and their greatest value is in their unique ability to provide a fast and accurate model of the SoC in order to allow pre-silicon validation of the embedded software.”

Helena Krupnova

Prototyping Project Leader

Synopsys

“Synopsys has a long history of publishing methodology manuals that have been widely used by designers to help them be more productive. The collaboration between Synopsys and Xilinx, with contributions by noted industry leaders in prototyping, has made it possible to capture best practices in the FPMM. This has paved the way for other users to learn from this experience and help speed system validation.”

John Chilton

Senior Vice President, Marketing and Strategic Development

Xilinx

“The FPMM will be an invaluable resource to ASIC designers and prototypers because it is the industry’s first attempt to collect in one volume information to outline the challenges and solutions for successfully prototyping ASIC designs in FPGA hardware. Xilinx Virtex® FPGA devices have been extensively used for ASIC prototyping because of their high logic capacity, and we expect that trend will continue with the delivery of 2 million logic element devices in our 28nm Virtex-7 family.”

Vincent Ratford

Senior Vice President, Worldwide Marketing and Business Development