

SDLL-NANDFLASH-PHY

Synthesizable Digital Locked Loop PHY
for the NAND Flash Memory Controller

MAJOR FEATURES

- ◆ Compatible with ONFi 1.x and 2.x standards
- ◆ By-pass mode for asynchronous operating mode
- ◆ No additional PLL required
- ◆ Small area
- ◆ Low power

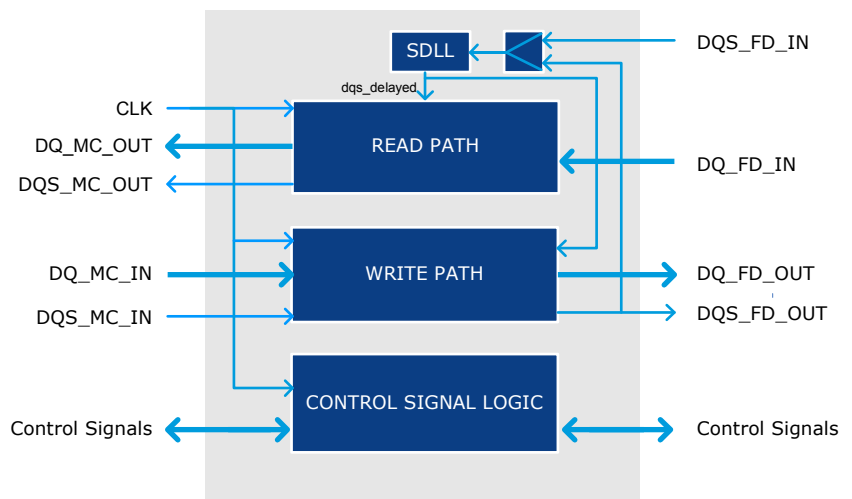
OVERVIEW

The **SDLL-NANDFLASH-PHY** IP core allows to work with ONFi 1.x and 2.x compliant High-Speed NAND Flash memories. In conjunction with the memory controller the **SDLL-NANDFLASH-PHY** forms a complete system and provides System-on-Chip developers with a comprehensive way to leverage emerging embedded application technologies and maximize their performance while minimizing time-consuming hardware and software development.

TARGET TECHNOLOGY

The **SDLL-NANDFLASH-PHY** is currently available on the LFoundry 150nm process with the possibility to port it to other technology nodes on request.

BLOCK DIAGRAM



SDLL-NANDFLASH-PHY

BENEFITS

- ◆ Source synchronous (High Speed DDR mode) and asynchronous interfaces support
- ◆ Support for ONFi 1.x and 2.x standards speeds time-to-market for products basing on NAND Flash technology

RELATED PRODUCTS

NANDFLASH-CTRL - the ONFi 2.2 compliant controller for high-capacity Multi-Level Cell (MLC), Single-Level Cell (SLC) and High-Speed NAND Flash memories.

APPLICATIONS

- ◆ Mass Storage - USB flash drives, digital cameras, digital voice recorders, Solid State Drive (SSD)
- ◆ Embedded Storage — cellular phones, network routers, point of sale systems.

STANDARD DELIVERABLES

- ◆ Verilog source code
- ◆ Synthesis support for Synopsys® tools with a set of synthesis scripts
- ◆ Simulation support for Mentor Graphics® and Cadence® tools with a set of scripts and macros
- ◆ Basic HDL test bench
- ◆ Stimulus files
- ◆ Expected simulation results
- ◆ Documentation:
 - › Design Specification
 - › Verification Specification
 - › Test Plan
 - › Layout Guidelines
- ◆ 30 days of technical support
- ◆ 90 days of warranty against defects

DELIVERY OPTIONS

- ◆ GDSII hard macro
- ◆ Synopsys Design Compiler netlist



For more information on our IP portfolio visit www.evatronix.com/ip



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