

Posedge Announces ONFI-2.2 Compliant Universal Flash Controller IP Core

Sunnyvale, CA – February 4th, 2010 – **Posedge** has announced the availability of Universal Flash Controller (UFC) Soft IP Core that interfaces to NAND, NOR, and Serial Flash devices fully conforming to standards such as the latest Open NAND Flash Interface Working Group (ONFI) 2.2 specification. Posedge has developed a flexible and high performance Universal Flash Controller leveraging its vast experience in Storage and Flash Systems.

ONFI defines a standardized NAND flash device interface that provides a means to support a range of device capabilities at high speeds that are consistent with existing NAND Flash designs and future proof support for new Flash Devices. ONFI 2.2 presents a clear evolutionary path to the NAND Flash storage by providing synchronous modes to achieve higher throughputs and to support higher density memories.

“Posedge UFC offerings are built on our industry-leading experience in developing storage solutions with hardware IP and software eco-system to go with it. This new product expands the capabilities of the Flash Interface to be ONFI 2.2 compliant and achieve much higher transfer rates, reliability with advanced features such as synchronous modes and ECC with BCH coding” said Surya Hotha, Director of Marketing & Business Development at Posedge. “The UFC and the file system software offer complete functionality and high level of configurability to enable integration into different SoC and Storage Systems.”

The UFC Core supports NAND Flash accesses at up to 200 MTps (Million Transfers per second) with transfer size of 8bits or 16bits depending on the mode and Serial Flash accesses at up to 70 Mbps enabling faster data access and boot times. The UFC is interoperated with Flash memories from various vendors (Samsung, Micron, Spansion, and others). The architecture is very generic and highly modular to address customer specific requirements with generic AXI/AHB/APB/FIFO Interfaces. The core is designed to support both SLC and MLC NAND flash memories and is backward compatible with prior standards such as ONFI 1.0 and 2.0.

UFC IP Core Key Features:

- ◆ NAND Interface compliant to the new ONFI 2.2 specification
- ◆ Configurable page size and spare area size
- ◆ Supports both Synchronous and Asynchronous modes
- ◆ Flexible boot Support
 - From NAND, NOR, and Serial Flash devices
 - Configurable Boot Sector range
- ◆ ECC Options
 - Both Hamming Code and BCH
- ◆ Low power implementation
- ◆ Low Software overhead
- ◆ NOR Flash extensible to Compact Flash

The UFC IP has advanced features such as synchronous and high speed modes of operation that are suited for integration into SoC platforms and storage devices. The UFC IP core can be used in various applications including, but not limited to

- SoCs with Flash Interfaces for boot / storage
- Controllers and Media Devices with large storage requirements
- Storage Controllers
- Flash based Storage Systems

Posedge provides, as part of the IP licensing package, reference drivers and extensive customer support. The IP package consists of Verilog RTL code, self checking OVM based testbench and testcases, synthesis scripts, and elaborate documentation with functional coverage results. Posedge also offers a suite of design services for customization and integration of the IP cores into customer's ICs or FPGAs for prototyping.

If you are interested in finding out more about the UFC IP core, please download the datasheet from the following link:

http://www.posedge.com/datasheets/Posedge_UFC_Datasheet.pdf

About Posedge Inc.



Posedge Inc. (www.posedge.com), headquartered in Sunnyvale, CA, USA, is leading supplier of Wired / Wireless Secure Networking Semiconductor Intellectual Property (“IP”) solutions for SOC/FPGA. Posedge’s highly differentiated product portfolio includes Multi-Gigabit Layer2+ Switch, 10 Gbps MACsec engine, TCP Offload Engine, IPSEC Protocol Processor, 10 Gbps Data Compression engine, Multi-Gigabit Routing Processor in addition to SoC Solutions such as SD / SDIO, Flash and Bus Protocols. Posedge's solutions include hardware, software drivers, firmware, software stacks as applicable and the IP is augmented with leading-edge design and verification **Services** for customization.

Founded in 2006, Posedge has 60 employees in two design centers in Sunnyvale, CA, USA and Hyderabad, India. Posedge’s Semiconductor “IP” and designs services have been used by major semiconductor vendors and startups including: *AMCC, AMD, Broadcom, Maxim, TI*, and others. For further information please visit

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