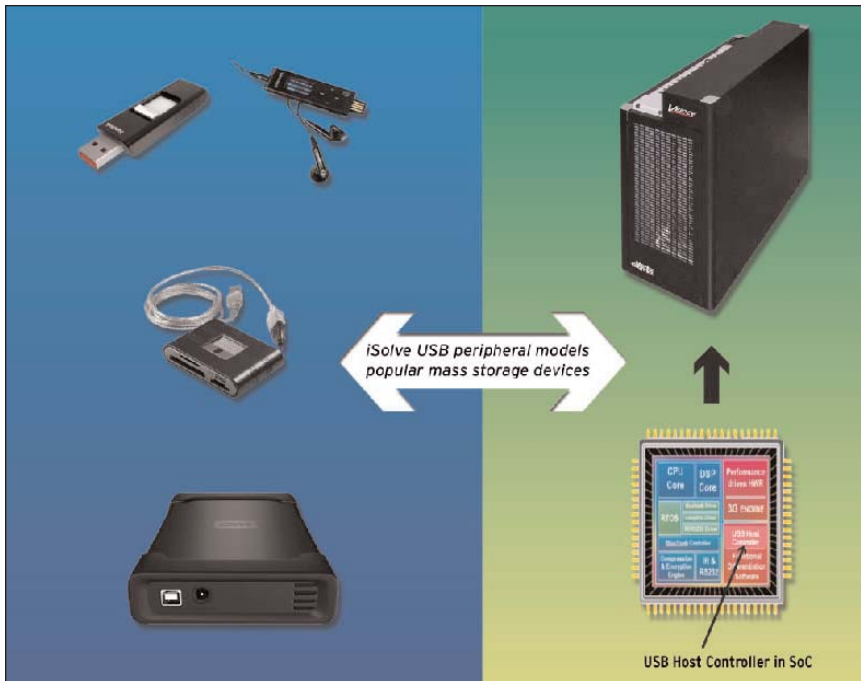


iSolve USB Peripheral

Hardware-Based Functional Verification

D A T A S H E E T



iSolve USB peripheral is used to model a hard-disk drive or similar mass storage devices connected to your SoC which is emulated with Veloce.

Advanced Verification for SoC Designs with USB Host Interface

Mentor Graphics® iSolve™ USB peripheral provides a high-speed solution for the verification of System-on-Chip (SoC) designs containing a USB Host controller that communicates with a USB peripheral, such as a hard-disk drive or portable memory USB device. Together, with Mentor's Veloce™ hardware emulator, iSolve USB peripheral increases the overall productivity of your system-level verification by providing a solution that accurately models a real USB mass storage device that is connected to your SoC design.

USB 2.0 Compliant

The iSolve USB peripheral solution supports the USB 2.0 UTMI interface, or

the UTMI+ low-pin interface (ULPI) for flexible USB host controller connectivity. In addition, the iSolve USB peripheral solution supports both Full Speed (FS) and High Speed (HS) USB peripherals, compliant with the USB 2.0 specification.

Includes Innovative 'Side Door' Access Method

To achieve the speed required to upload and download the multiple GBytes of data between your design and mass storage device, iSolve USB peripheral uses a novel approach of a 'side door' access method to load or unload the data contents without having to run emulation clock cycles. In this way, you are able to efficiently run emulations in minutes that would otherwise take hours to run.

Product features and benefits:

- External solution for USB mass storage devices such as hard-disk drives, Flash drives, USB sticks, digital audio players, etc. for system-level verification
- High capacity (4GBytes) per unit provides storage for data transfers to the USB peripheral device to meet emulation needs
- High-speed data upload and download capabilities at 1 to 2 minutes per GByte increases verification productivity
- Models standard USB device requests and mass storage class-specific device requests
- Flexible, easy-to-use graphical host application interface provides control over setup, initialization, data upload/download, and configuration of common USB characteristics such as device speed and descriptors
- Batch-mode operation of the commands supported for increased efficiency, addressing the needs of "power users"

Product specifications:

- Host interface support:
 - Linux Red Hat Enterprise 4 (64-bits)
 - SuSE SLES 10.1 (64-bits)
- Veloce platforms: Solo, Quattro, Grande, and Maximus
- Performance: Up to 1.5 MHz in emulation

Easy-to-Use Graphical Interface

iSolve USB's graphical user interface (GUI) provides you with an easy-to-use environment for configuring your external USB peripheral. Running the GUI on a Linux workstation, you are able to control common parameters such as initialization, data uploaded from or downloaded to the USB peripheral, peek and poke

values, and to configure common characteristics of the USB peripheral, such as descriptors.

Batch-Mode Scripting Language

For added flexibility, iSolve USB also offers batch-mode scripting language for greater effectiveness in regression runs with the Veloce emulator. iSolve USB

peripheral provides simple connections to the hardware emulator and host workstation for plug-and-play use. Easy set-up and emulation debug are provided through the iSolve USB peripheral host application, which can handle the GBytes of data upload and download in minutes, leading to high-performance emulation and increased productivity.



iSolve USB peripheral enables system level verification of a USB Host controller subsystem by modeling USB mass storage specific device requests.

Visit our website at www.mentor.com/emulation for more information.

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