USB/SATA to SATA Bridge

Overview

The INIC-1611 provides an advanced solution to connect SATA devices to USB or SATA Host with integrated CPU and embedded SRAM/ROM. To provide high performance and cost effective solution, the INIC-1611 integrates USB-PHY Mass Storage Class Bulk-Only USB function, SATA link/PHY core and microprocessor into a single ASIC. The INIC-1611 provides the data transfer rate of up to 60 MB/sec connecting to a 1.5G SATA interface.

Feature Summary

- Integrates USB2.0 PHY IP core.
- Data transfer rate of up to 60 MB/sec on USB side, 150 MB/sec on SATA side.
- Integrated internal Turbo 8051 uP with 24KB embedded ROM and 2KB SRAM.
- External NVRAM supported.
- Support HID.
- Up to 9 GPIO pins.
- Only one external crystal.
- Supports SATA (bridged SATA) Hard Disk drives, CD-RW devices, DVDs, Removable media devices, BD (Blu-Ray Disc) drive

- USB 1.1 and USB 2.0 compliant.
- USB Mass Storage Class Bulk-Only Transport Specification Compliant.
- SATA specification 1.0 (1.5 Gbps), SATA II and eSATA Compliant (Hot Plug is supported).
- Supports SATA NCQ.
- Supports 3Gbps SATA host and 3Gbps SATA HDD
- Support SATA BIST through USB and SATA bus
- Support ATA/ATAPI device DMA and PIO mode.
- 2k bytes of data buffer for data transfer.
- On-Chip 3.3V to 1.8V regulator.
- 64 pin LQFP

Firmware/Software Support

- USB Mass Storage Class Bulk-Only Transport support
- Provide software utilities for NVRAM upgraded.

Devices Support

- Hard disk drives
- CD-RW devices
- DVDs
- Removable media devices
- BD(Blu-ray Disc) Drive

Block Diagram