

## USB 3.0 to SATA Bridge Controller

The USB300 is a single chip USB 3.0 to SATA-II bridge designed for external storage devices. It natively supports the standard USB mass storage class protocol. This means that the USB300 connects to most computers/operating systems (Windows, Linux, Macs, etc.) without additional drivers or firmware. It supports SuperSpeed, Hi-Speed, and Full-Speed USB connections and is fully backward compatible to all USB 2.0 and USB 1.1 hosts.

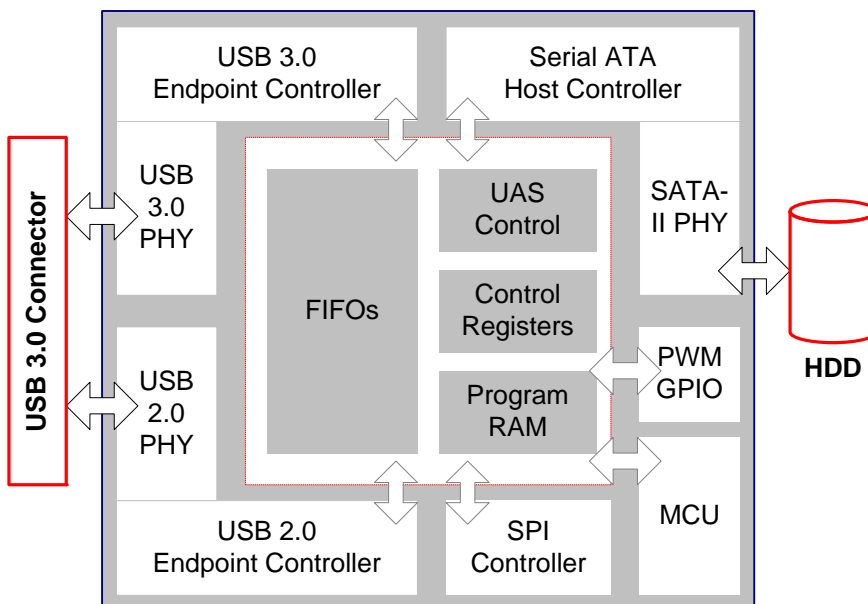
The USB300 attaches to any Serial ATA device. Its integrated SATA-II host controller automatically connects at either 1.5 or 3.0 Gbps – working with all SATA based hard disks, solid state drives, and RAID arrays. The USB300's support for USB Attached SCSI Protocol (UASP) and Native Command Queuing (NCQ) maximizes disk performance.



### System Development

The USB300 reduces total BOM costs by keeping required support components to a minimum. It only needs a single voltage regulator (3.3V to 1.0V) and a single crystal (30 MHz).

USB300 firmware is highly configurable and supports many premium features. These include automatic fan control, automatic standby timer, write protection, one touch backup, a soft power button, capacity indicators, and various activity LEDs. Mass production tools for board testing and serial number customization are also available.



### Features

#### ◆ USB Peripheral Interface

- SuperSpeed, Hi-Speed, and Full Speed USB Connections
- USB Mass Storage Class support
- UASP support for enhanced performance
- Operates self or USB bus powered
- Firmware upgradeable through USB

#### ◆ SATA Host Interface

- Integrated 3 Gbps SATA-II PHY
- Hot Swap Drives
- Automatic spin/power down drive
- Support for drives bigger than 2 TB
- Native Command Queuing
- RAID 0/1 port multiplier support

#### ◆ General Features

- Automatic Fan Control
- One Touch Backup
- Write Protect Switch
- Safe Remove Button
- Single voltage (3.3 V) and clock source (30 MHz) requirement
- 10x10mm 88 pin QFN package (0.4mm pitch)

Doc#300-05-116