## Highlights

■ **General Features**
- o High performance dual SATA storage controller

■ **Key Features**
- o High performance dual SATA storage controller
- o Integrated SATA cores and PHYs
  - – Port can be configured for eSATA device operation
  - – Supports SATA II Gen2m specification and 3.0Gbps and 1.5Gbps interfaces
- o Market proven 1394a PHY and Link Layer with industry leading performance
- o Integrated 480Mbps USB2.0 high speed core and PHY
- o Integrated hardware RAID controller supporting (over USB and FireWire):
  - – Disk striping (RAID0) for maximum performance
  - – Disk mirroring (RAID 1) for maximum data protection
  - – Disk spanning for large capacity single volume
- o External flash interface
- o I2C interface for optional EEPROM
- o USB and USB mass-storage compliant
- o Support for USB Human Interface Device (HID)
- o Support for button push apps
- o 12 GPIOs allow easy product customization

The OXUF934DSA is a high performance, configurable storage controller for bridging between FireWire400, USB2.0, eSATA and SATA hard disks.

Optimized for performance and offering increased functionality on the external SATA-to-SATA path, the OXUF934DSA supports a range of RAID and storage applications targeted at users requiring maximum performance, reliability and ease of use.

The OXUF934DSA can be configured for FireWire400 / USB to dual SATA, or eSATA to SATA operation. When configured in dual SATA mode, the integrated hardware RAID controller supports disk striping (RAID0) for maximum performance or disk mirroring (RAID1) for maximum data protection For higher speed connections, one of the SATA ports can be configured as a device port enabling USB, FireWire400 and eSATA combo applications.

The OXUF943DSA shares a common software base with other devices in Oxford's range of USB and FireWire storage controllers. In addition, Oxford offers a comprehensive support package that includes evaluation boards, reference designs, and software development kit.

### Embedded ARM Processor

By managing the data flow, the on-chip ARM7 processor enables a whole new series of standalone consumer electronic product to be developed in a simple C/C++ programming environment.

### USB2.0

The embedded USB2.0 PHY supports both full and high speed, using bulk-only transport Mass Storage Class device protocol. Its fast read and write transfers ensure that the maximum possible host performance is maintained.

No additional USB host drivers are required, for either Windows® or Mac® operating systems, for standard storage, button notification or GPIO control applications.

### FireWire400

The embedded 1394 PHY and link layer supports FireWire400 and complies with the 1394-1995 and 1394-2000 specifications.

No additional 1394 host drivers are required for either Windows or Mac operating systems for standard storage applications.

### SATA Interface

The dual port SATA host with embedded PHY supports the latest revisions of the SATA II specifications, including the Gen2m interface for eSATA devices. Interface speeds of 3GHz and 1.5GHz deliver maximum performance with minimum latency for external SATA storage.

## RAID

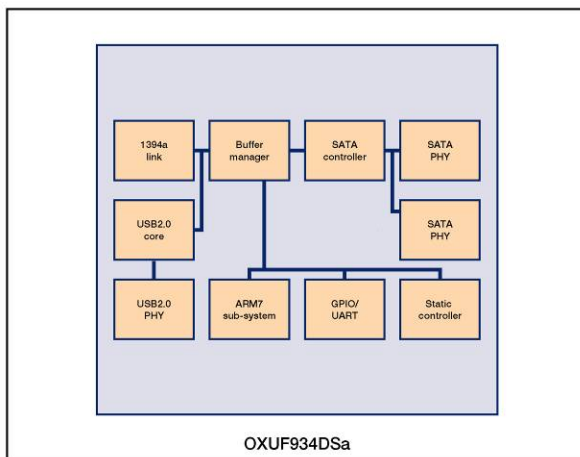The chip supports several RAID functions over USB and FireWire interfaces:

o   Striping (RAID 0) allows two disks to appear as a single ultra fast disk by sharing the load between the two disks

o   Mirroring (RAID 1) each disk is an exact copy of the other, providing the highest level of data integrity with 100% data redundancy.

o   Spanning (concatenation) allows two drives to appear as a single linear volume to the host machine.

## Development Support

For external Mac and PC storage solutions, Oxford Semiconductor offers a comprehensive support package including:

o   Reference designs comprising both hardware and software components

o   Evaluation boards with pre-built application firmware

o   Software Development Kit (SDK) comprising source code and debug boards

o   Extensive range of application notes to shorten learning curves and simplify implementation

## OXUF934DSa Block Diagram



OXUF934DSa

## Product Ordering Information

| Part Number | Description |
| --- | --- |
| OXUF934DSA-LQAG | FireWire 400, USB 2.0, eSATA to SATA controller |

Visit www.plxtech.com for more information.