

## Galaxy

SW03080-GLXY

1394b/USB2.0

HDD Reference Design



\* Peripherals shown are for illustrative purpose. Many other peripheral options available.

### Features

- Ports
  - 2.5" SATA HDD Port
  - Dual 1394b ports
  - Dual USB2.0 Standard-A ports
  - USB2.0 Mini-B Host port
  - 5V DC Input
  - 1394 pass-through power
  - 500mA/port USB power
- SW3080 1394b FirePHY™
  - Firewire™ IEEE-1394b 800Mbps 3-port PHY
  - Backward compatible to IEEE 1394a-2000, 1394-1995
  - Industry-leading low-power PHY
- Programmable bi-color LEDs

Symwave's FirePHY™ product family offers high performance device connectivity solutions for video, audio, and storage applications in the Personal Computer and Consumer Electronic markets. The SW3080 FirePHY™ is a 3-port IEEE-1394b Firewire™ compliant physical layer IC supporting data rates up to 800Mbps. Each *bilingual* PHY port supports Beta-mode and Data Strobe (DS) Legacy mode that is backward compatible with IEEE 1394a-2000 and IEEE 1394-1995 standards. Symwave's unique analog intellectual property results in industry-leading clock jitter performance with improved signal integrity and easy PCB layout.

Symwave's *Galaxy* reference design demonstrates the SW3080 1394b PHY performance as well as the concept of pluggable "HDD cartridges". The base platform accepts standard 2.5" SATA drives and includes two high performance 1394b connections for use by host computer or external peripheral device. The platform also provides a dual-port USB2.0 hub capability.

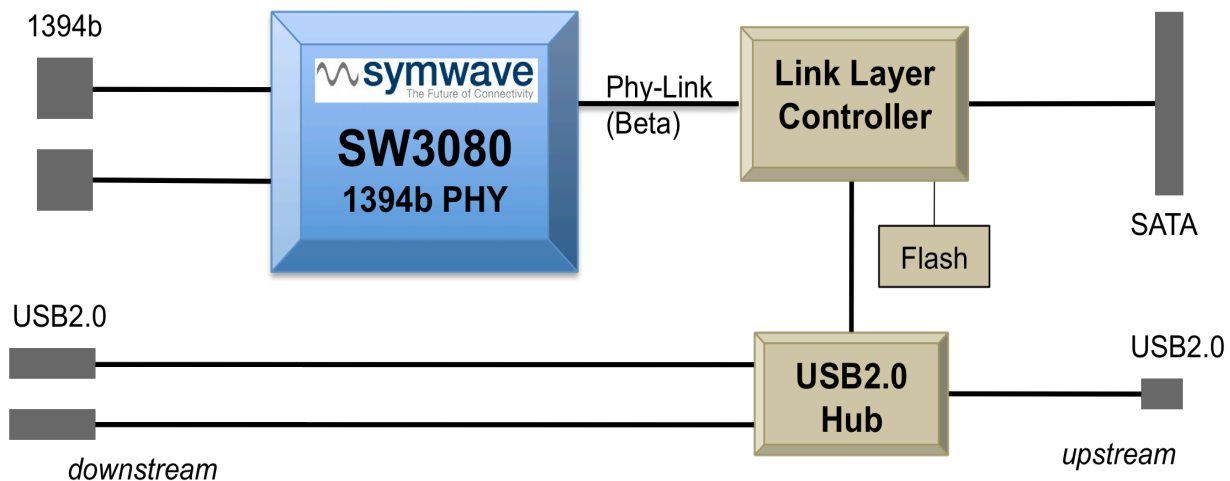
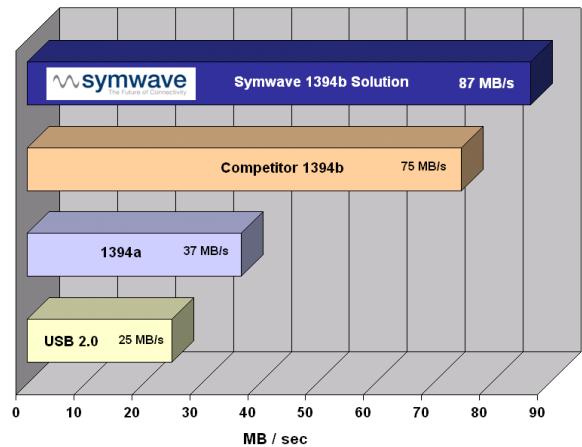
*Design materials (schematics, layout, SW3080 data sheet) and samples of the SW3080 are available upon request.*

The SW3080 The SW3080's industry-leading low-power operation makes it an ideal solution for products with significant power constraints. Lower power is achieved through the addition of sophisticated power management algorithms and proprietary data synchronization techniques.

**APPLICATIONS**

- ▶ High-speed external 1394b Hard Disk Drive (HDD) or stacked RAID systems
- ▶ PC & Laptop (low power)
- ▶ Consumer Electronics (CE) Devices
- ▶ Digital Video Recorder (DVR)
- ▶ Digital Television
- ▶ 1394b-to-1394a translation

**HDD Throughput Performance**



Galaxy Block Diagram