SiI3726 SATA Port Multiplier

Featuring Silicon Image’s SteelVine® Technology

SiI3726 is a 1-to-5 Serial ATA (SATA) port multiplier designed to provide a high-performance link between a single SATA host port and five SATA device ports. The SiI3726 supports host and device link rates of 1.5 Gbps and 3 Gbps with auto-negotiation, and when connected to a FIS based switching controller, it provides data aggregation to fully utilize the 3G host link. It supports SEMB protocol for enclosure management and programmable PHY drive strength.

**Applications**
- Server drive expansion
- NAS drive expansion
- Nearline DAS storage
- External storage enclosures
- Security DVR drive expansion

**Key Features**
- 1.5G or 3G, auto negotiation
- FIS-switching controller support
- SEMB enclosure management over I2C
- Programmable PHY strength, hot plug
- Expands 1 SATA port to 5 SATA ports
- High performance data aggregation
- Host and device status/activity LEDs
- In-band control of 8 GPIs/16 GPOs pins
- Far-end loop back BIST support
- Auto initialization from EEPROM
- HDD (ATA) or ODD (ATAPI) supported

**Benefits Summary**
- Easy-to-Use SATA drive expansion
- Configurable for internal and external (eSATA) applications
- Supports SEMB enclosure management
- Programmable cable length support
- Status LEDs for each port
- In-band programmable 8 GPIs/16 GPOs

**Industry-Standard Compliance**
- SATA PM 1.1
- SATA Gen 1 (1.5G) and Gen2 (3G)

**Host Port**
- Supports one SATA host port, 3Gb/s
- Hot Plug support
- Supports Asynchronous Notification
- SATA port multiplier spec. compliant
- Supports PM aware hosts
- Two detailed system status LEDs
- eSATA signal level support (1m and 2m PHY compliant)

**Device Port**
- Five SATA device ports, 3Gb/s
- Hot Plug support
- SATA port multiplier spec. compliant
- Compatible with NCQ drives
- Two LEDs for detailed status per port
- eSATA signal level support (1m and 2m PHY compliant)

**System Features**
- Four status LEDs for system functions
- Works without BIOS updates
- ATA and ATAPI device support
- Spread Spectrum Clocking w/SSC clock
- Field-upgradeable firmware
- 8 Programmable GPIs and 16 GPOs
- JTAG boundary scan and BIST support

**Hardware and OS Support**
- SiI3726 reference design board
- OS Agnostic, no driver required
- EEPROM auto initialization

**Package**
- 364 HSBGA