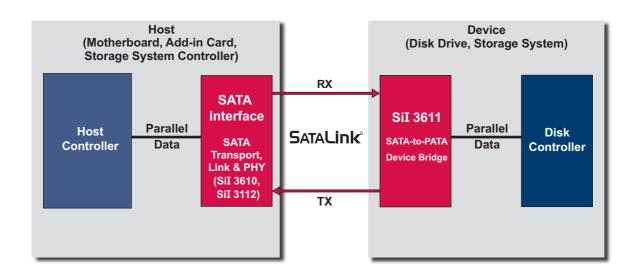The SiI 3611 is a single-chip Serial ATA-to-Parallel ATA device bridge solution. Combining the Transport, Link and PHY layers of Serial ATA with a Parallel ATA interface, the SiI 3611 enables manufacturers to take advantage of Serial ATA connectivity while using low-cost, widely available Parallel ATA controllers. As a member of Silicon Image's SATALink™ family of Serial ATA products, the SiI 3611 has undergone extensive interoperability testing and offers the industry's most robust device bridge solution available.

The SiI 3611 supports the Serial ATA Generation 1 transfer rate of 1.5 Gbps (150 MB/s) with its on-board serializer/deserializer and is compatible with Ultra ATA/133. The SiI 3611 features a standard ATA port that can interface to Parallel ATA devices such as hard disks and CDROMs. It accepts Serial ATA commands from the host's Serial ATA interface, decodes the commands and converts them to Parallel ATA device commands. Through the Parallel ATA bus, responses from the device are deciphered, processed, converted to Serial ATA protocol and sent to the host.

The SiI 3611 leverages much of the circuit innovation at the physical layer of Silicon Image's proprietary reduced overhead Multi-layer Serial Link (MSL™) architecture, pioneered and proven through the company's market-leading PanelLink® products. MSL technology is a multi-layer approach to providing robust, cost-effective, multi-gigabit semiconductor solutions on a single chip for high-bandwidth applications.
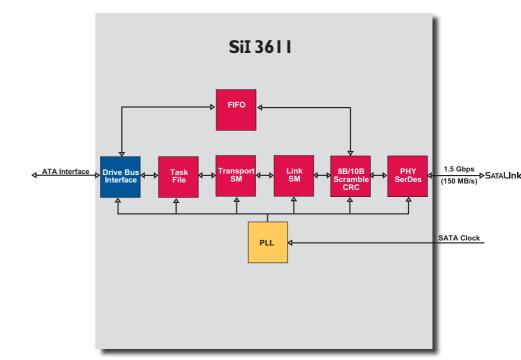
SATA Applications
- Disk Drives
- Storage Systems

Silicon Image

SiI 3611 Features
SATALink™ Device Bridge

General
- Serial ATA - 1.5 Gbps (150 MB/s)
- Compliant with Serial ATA 1.0 specification
- Integrated Serial ATA Transport, Link logic and PHY
- Ultra ATA/133 parallel interface
- 48-bit sector addressing
- Supports spread spectrum clocking to reduce EMI
- Single, digital PLL architecture, with low jitter
- Full ESD tolerance to 2 kV
- Extensive interoperability testing

Transfer Rates
- Supports PIO and DMA modes
- Supports bus master DMA at 1.5 Gbps burst rate

Power
- Core: 1.8V, I/O: 3.3V operating voltage with 5V tolerance

Package
- 80-pin, 12x12 mm TQFP (Thin Quad Flat Pack)

Part Number - SiI3611CT80

Silicon Image's SiI 3611 Starter Kit

The CP3611SATA150 Starter Kit includes hardware and documentation to quickly design and launch a SATA 1.0-compliant bridge solution.

Contents Include:

Hardware
- SiI 3611 evaluation board
- Serial ATA cable

Documentation
- SiI 3611 Data Sheet
- SiI 3611 Evaluation Board User's Guide