



**Genesys Logic, Inc.**

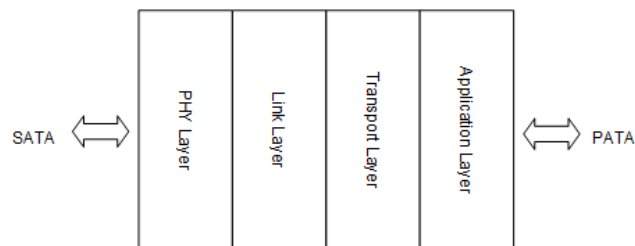
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**GL831A**

**SATA to PATA  
Bridge Controller  
Product Brief**

## GENERAL DESCRIPTION

The GL831A is a cost competitive, standard SATA/PATA bi-directional bridge controller that compliant to the latest SATA and PATA specifications. The controller integrates Genesys Logic in-house designed SATA PHY that guarantee lowest power consumption and proven system/device compatibility. GL831A's on-chip PLL implements slew-rate control mechanism to reduce the EMI issue on PCB level. A 3.3V to 1.8V power regulator is built-in to reduce system bill-of-material (BOM) cost. Smaller footprint package - 64-pin LQFP (7x7mm) is available for flexible PCB layout of space limited mechanics such as MID/UMPC applications.



## FEATURES

- Supports both Host/Device controller configuration
- Support bi-directional data transaction (PATA host to SATA device or SATA host to PATA device)
- Ultra-low power consumption
- Embedded PLL support 25MHz external crystal
- Embedded Regulator (3.3V to 1.8V).
- Low cost LQFP 64-pin (7x7) package
- Operating system supported: Win Vista/ Win XP / 2000 / Me / 98 / 98SE; Mac OS 9.X / X.
- **PATA interface:**
  - Support Master/Slave configuration
  - Complies with ATA/ATAPI-6 specification rev 1.0.
  - Support maximum speed of 66/100/133 Mbps
  - Support 16-bit Multiword DMA mode and Ultra DMA mode interface.
- **SATA interface**
  - Supports both 1.5Gbps and 3Gbps Speed Negotiation.
  - Complies with Serial ATA specification rev. 2.6.
  - Support SATA hot-plug.
  - Support Spread Spectrum Clocking (SSC) to reduce EMI.
  - Support Partial/Slumber power management.
  - Provide adjustable TX signal amplitude and pre-emphasis level.
  - Provide specified OOB signal detection and transmission.