



**Genesys Logic, Inc.**

---

**GL831A**

**SATA / PATA  
Bridge Controller**

**Product Overview**



## Copyright

Copyright © 2012 Genesys Logic, Inc. All rights reserved. No part of the materials shall be reproduced in any form or by any means without prior written consent of Genesys Logic, Inc.

## Ownership and Title

Genesys Logic, Inc. owns and retains of its right, title and interest in and to all materials provided herein. Genesys Logic, Inc. reserves all rights, including, but not limited to, all patent rights, trademarks, copyrights and any other propriety rights. No license is granted hereunder.

## Disclaimer

All Materials are provided "as is". Genesys Logic, Inc. makes no warranties, express, implied or otherwise, regarding their accuracy, merchantability, fitness for any particular purpose, and non-infringement of intellectual property. In no event shall Genesys Logic, Inc. be liable for any damages, including, without limitation, any direct, indirect, consequential, or incidental damages. The materials may contain errors or omissions. Genesys Logic, Inc. may make changes to the materials or to the products described herein at anytime without notice.

## Genesys Logic, Inc.

12F., No. 205, Sec. 3, Beixin Rd., Xindian Dist. 231,  
New Taipei City, Taiwan  
Tel : (886-2) 8913-1888  
Fax : (886-2) 6629-6168  
<http://www.genesyslogic.com>



### GENERAL DESCRIPTION

The GL831A is a highly-compatible, low cost SATA to PATA and PATA to SATA bridge controller, which integrates Genesys Logic own design Serial ATA PHY. As a one-chip solution which complies with Serial ATA specification rev. 2.6 and ATA / ATAPI-6 specification rev 1.0, the GL831A can support various kinds of ATA / ATAPI device in SATA to PATA and SATA device in PATA to SATA. The GL831A uses 25MHz crystal and slew-rate controlled pads to reduce the EMI issue. With 64-pin LQFP (7X7mm) package, the GL831A is the best cost/ performance solution for SATA to PATA and PATA to SATA application.



## FEATURES

- Complies with ATA/ATAPI-6 specification rev 1.0
- Support 16-bit Multiword DMA mode and Ultra DMA mode interface
- Operating system supported: Win Vista/ Win XP / 2000 / Me / 98 / 98SE; Mac OS 9.X / X
- Complies with Serial ATA specification rev. 2.6
- Support Spread Spectrum Clocking to reduce EMI
- Support SATA hot-plug
- Provide adjustable TX signal amplitude and pre-emphasis level
- Provide specified OOB signal detection and transmission
- Supports 1.5Gbps data rate
- Supports both Host/Device controller configuration
- Support SATA 25MHz external crystal
- Support Master/Slave setting
- 3.3V power input; 5V tolerance pad
- Embedded Regulator (3.3V to 1.8V)
- Available in 64 pin LQFP

## BLOCK DIAGRAM

