



## JMB352



# High-Speed USB & SATA II Combo to Dual SATA II RAID Bridge

## Description

The JMB352 is a bridge controller, which translates the communication protocol between SATA II 3.0G and Hi-Speed USB commands. The integrated 60MIPS 8051, 3-port SATA II 3.0G and Hi-Speed USB technology enable users to perform Hi-Speed USB to dual SATA II 3.0G, and eSATA II 3.0G to dual SATA II 3.0G applications in a signal chip.

In this chip, the Hi-Speed USB controller supports the USB Mass Storage Class Bulk-Only Transport Specification, and support 3 LUN applications. The SATA controller could be configured as host or device. The 3-port SATA II 3.0G controllers further supports the eSATA to dual SATA communication. Integrated these two technologies, the user could perform JMB352 to the following applications.

- eSATA & Hi-Speed USB combo to dual SATA bridge application with RAID0 or RAID1 or JBOD function. (USB Default Driver of OS)
- Hi-Speed USB to SATA with 3 LUN bridge application (USB Default Driver of OS)
- Dual eSATA & Hi-Speed USB to SATA application (USB Default Driver of OS)
- One-button system backup application for above 3 applications. (With SATA, USB Vender Software Application)

## Features

- Compliance with Serial ATA International Organization: Serial ATA Revision 2.6
- Compliance with Gen1i, Gen1m, Gen2i and Gen2m of Serial ATA International Organization: Serial ATA Revision 2.6
- Support SATA 1.5G/3.0G Speed Negotiation
- Support SATA II Asynchronous Signal Recovery (Hot Plug) feature
- Support SATA Host/Device controller configuration
- Compliance with USB 2.0 electrical specification
- Support USB 2.0 High-Speed and Full-Speed Operation

## Quick Reference

Signal Bit Rate	3.0 Gbps
Power Supply	3.3V and 1.2V
GPIO Support	UP to 24
ESD Protection	2000 V
Package	100-pin LQFP
RAID Level Support	RAID 0,1, JBOD, Port Multiplier
SATA Port	3
USB Port	1

- Support USB HID Interrupt Transfer
- Compliance with USB Mass Storage Class, Bulk-Only Transport Specification
- Support 3 LUN of USB Mass Storage Class
- Support ATA/ATAPI PACKET command feature set
- Support SATA 30MHz or 40MHz external crystal
- Integrated 60MIPS 8051 microprocessor with 64k-byte mask ROM
- Support one-button system backup operation
- Support one-button disk copy
- Support external NVRAM for customer VID/PID, Manufacture and Product String.
- Embedded 3.3V to 1.2V Voltage Regulator

<p>Applications</p>	<p>RAID solution</p> <ul style="list-style-type: none"> <li>• Mass storage devices</li> <li>• Optical storage</li> <li>• Storage system</li> <li>• Port Multiplier</li> </ul>
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### Functional Block Diagram

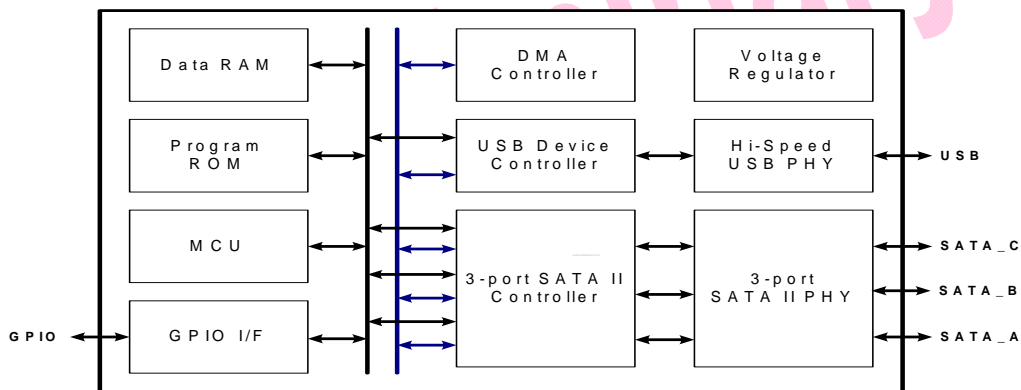


Fig. 1 Functional Block Diagram of JMB352

### Applications

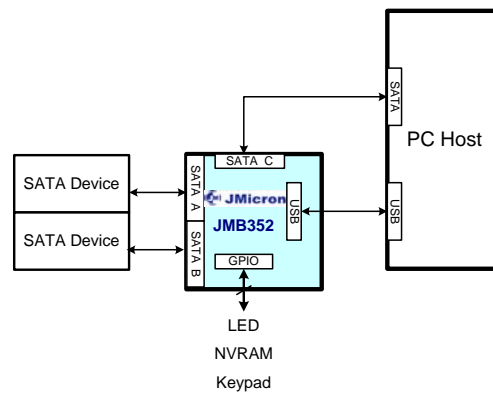


Fig. 2 eSATA & Hi-Speed USB combo to dual SATA Bridge application

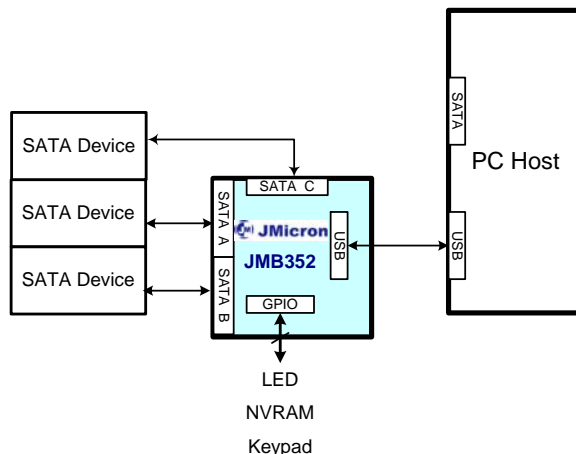


Fig. 3 Hi-Speed USB to 3-port SATA application

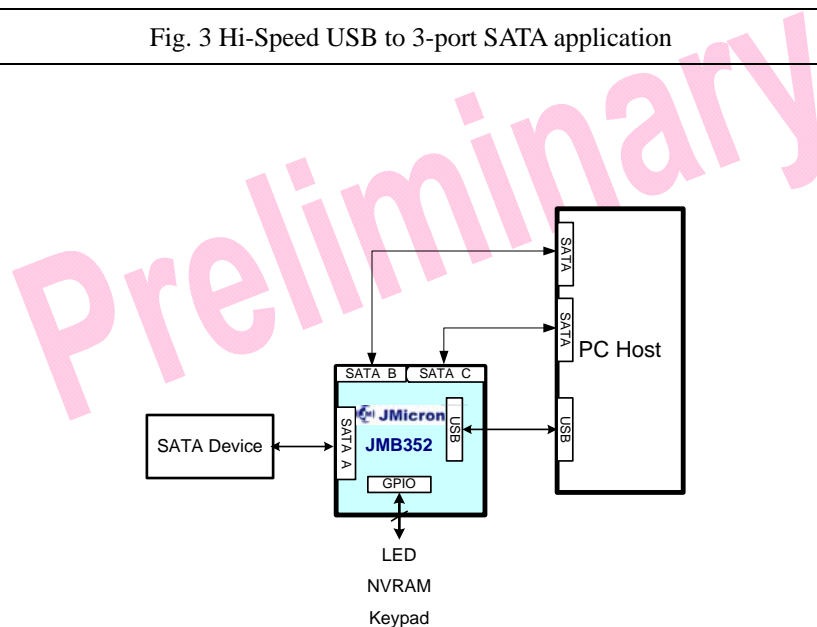


Fig. 4 Dual eSATA & Hi-Speed USB to SATA application

Product Information

Name	Description
JMB352	Serial ATA Bridge Chip

Design Kit

1	JMB352 Data Sheet
2	JMB352 Design Guide
3	Application EVB

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