



# JM20336 Hi-Speed USB & SATA II 3.0G Combo to SATA II 3.0G Bridge



## Description

The JM20336 is a bridge controller, which translates the communication protocol between SATA II 3.0G and Hi-Speed USB commands. The integrated 15MIPS 8051, dual-port SATA II 3.0G and Hi-Speed USB technology enable users to perform Hi-Speed USB to SATA II 3.0G, and SATA II 3.0G to 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 dual LUN applications. The SATA controller could be configured as host or device. The dual-port SATA II 3.0G controllers further support the SATA to SATA communication.

## Features

- Compliance with Serial ATA International Organization: Serial ATA Revision 2.5
- Support SATA 1.5G/3.0G Speed Negotiation
- Support SATA II Asynchronous Signal Recovery (Hot Plug) feature
- Support SATA II NCQ
- Support SATA Host/Device controller configuration
- Compliance with USB 2.0 electrical specification
- Support USB 2.0 High-Speed and Full-Speed Operation
- Support USB HID Interrupt Transfer
- Compliance with USB Mass Storage Class, Bulk-Only Transport Specification
- Support Dual LUN of USB Mass Storage Class
- Support ATA/ATAPI PACKET command feature set
- Support SATA 25MHz and USB 30MHz external crystal
- Integrated 15MIPS 8051 microprocessor with 32k-byte mask ROM
- Support 8 GPIO
- 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 1.8V Voltage Regulator
- 0.18um CMOS technology with LQFP 64/100 package

## Quick Reference

Signal Bit Rate	3.0 Gbps/SATA and 480 Mbps/USB
Spread Spectrum	-0.3% to 0.0
Power Supply	3.3V
ESD Protection	2000 V
Adj. Amplitude	2 levels
Adj. Pre-emphasis	4 levels
Package	64/100 -pin LQFP
Applications	USB & SATA products <ul style="list-style-type: none"> <li>• Enclosure system</li> <li>• Storage Subsystem</li> <li>• Portable compact HDD</li> </ul>



## Functional Block Diagram

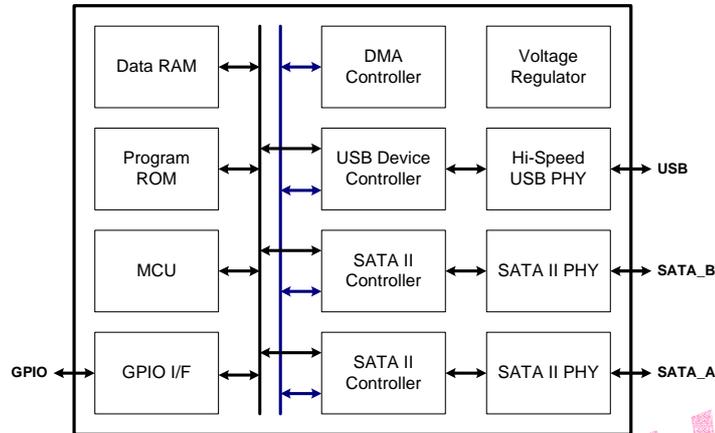


Fig. 1 Functional Block Diagram of JM20336

## Applications

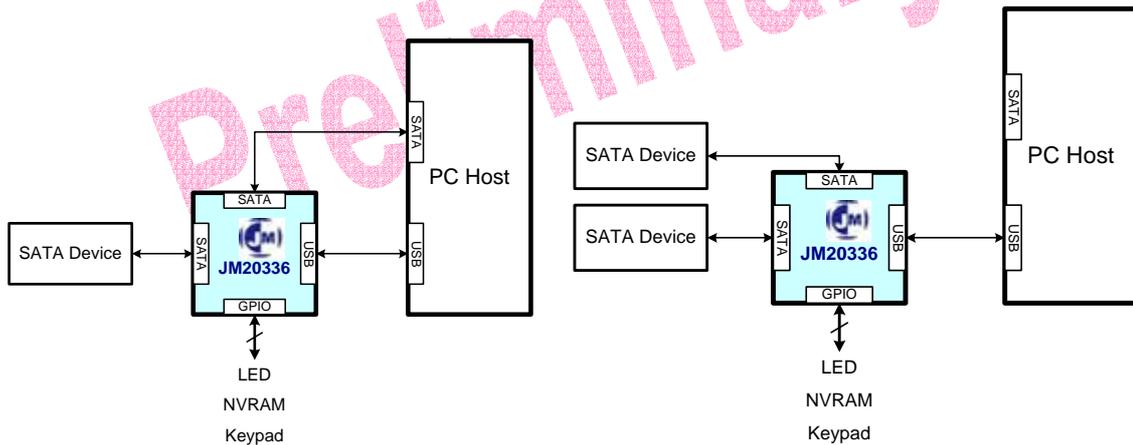


Fig. 2 Hi-Speed USB & SATA II 3.0G Combo to SATA II 3.0G Bridge

### Product Information

Name	Description
JM20336	Hi-Speed USB & SATA II 3.0G Combo to SATA II 3.0G Bridge

### Design Kit

1	JM20336 Data Sheet
2	JM20336 Design Guide
3	Application EVB

### Contact Information

Department	Email
Sales	<a href="mailto:sales@jmicron.com">sales@jmicron.com</a>
Tech. Support	<a href="mailto:fae@jmicron.com">fae@jmicron.com</a>