



## JM20335 Hi-Speed USB to PATA Bridge



### Description

The JM20335 is single chip solution to bridge between Hi-Speed USB and ATA/ATAPI-based mass storage device. It provides the capability to translate USB mass storage commands to ATA/ATAPI communication protocol. The USB adheres the Mass Storage Class Bulk-Only Transport Specification, and supports dual LUN operation, which could connect to two ATA/ATAPI devices. The embedded command parser supports both ATA and ATAPI command set with LBA48 addressing capability.

This chip is designed by 0.18um CMOS technology with 64 LQFP package

### Features

- Compliance with USB 2.0 electrical specification
- Support USB High-Speed and Full-Speed Operation
- Compliance with USB Mass Storage Class, Bulk-Only Transport Specification
- Support ATA/ATAPI Ultra DMA Mode 0, 1, 2, 3, 4, 5
- Support ATA/ATAPI Multi-Word DMA Mode 0, 1, 2
- Support ATA/ATAPI PIO Mode 0, 1, 2, 3, 4
- Support ATA/ATAPI PACKET command set
- Support ATA/ATAPI LBA48 addressing mode
- Support dual LUN (Logic Unit Number) with automatically master/slave enumeration
- Support 12MHz external crystal
- Support external NVRAM for Vender Specific VID/PID, Manufacture, Product String of USB Device Controller
- Support SCSI-2 Vender Specific Command for GPIO access
- Support SCSI-2 Vender Specific Command for NVRAM access
- Support SCSI-2 Vender Specific Command for ATA PIO command access
- Support ATA/ATAPI device power down control in USB Suspend mode
- Embedded 3.3V to 1.8V voltage regulator
- Single power 3.3V power supply
- 64 LQFP package
- Support hardware data protection
- Support interface for fingerprint sensor
- Support on line USB firmware update ( e.g. ISP) with Serial Flash
- Up to 24 GPIO

### Quick Reference

Signal Bit Rate	480 Mbps/USB
Power Supply	3.3V
ESD Protection	2000 V
LBA 48 bit support	Yes
GPIO	24
Package	64-pin LQFP
Applications	USB products <ul style="list-style-type: none"><li>• Enclosure system</li><li>• Storage Subsystem</li><li>• Portable compact HDD</li></ul>



## Functional Block Diagram

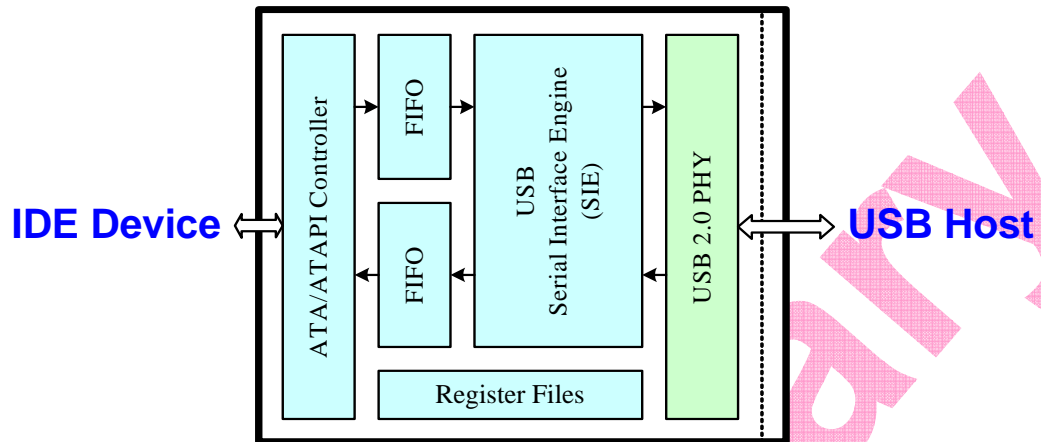


Fig. 1 Functional Block Diagram of JM20335

## Applications

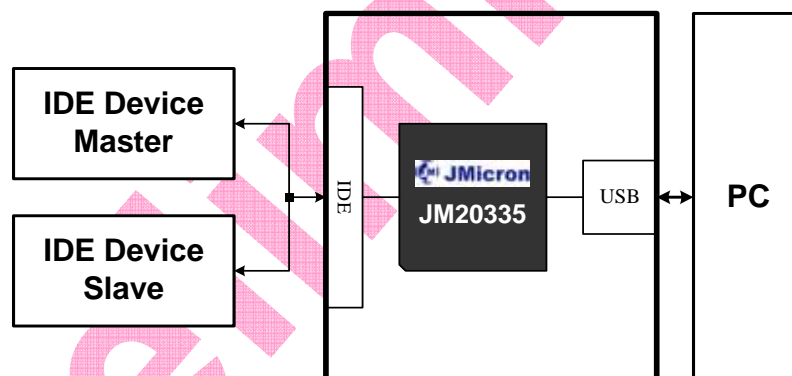


Fig. 2 Hi-Speed USB to PATA

### Product Information

Name	Description
JM20335	Hi-Speed USB to PATA Bridge

### Design Kit

1	JM20335 Data Sheet
2	JM20335 Design Guide
3	Application EVB

### Contact Information

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