



## JM20337

### Hi-Speed USB to SATA & PATA Combo Bridge

#### Description

The JM20337 is single chip solution to bridge between USB 2.0, SATA and ATA/ATAPI-based mass storage device. It provides the capability to translate USB 2.0 mass storage commands to serial ATA and ATA/ATAPI communication protocol. The USB adheres to the Mass Storage Class Bulk-Only Transport Specification, and supports dual LUN operation, which could connect to two ATA/ATAPI devices or one ATA/ATAPI device associated with one SATA device. The embedded command parser supports both ATA and ATAPI command set with LBA48 bit addressing capability.

#### Features

- Compliance with Gen1i, and Gen1m of Serial ATA II Electrical Specification 1.0
- Support SATA spread-spectrum transmitter
- Support SATA II Asynchronous Signal Recovery (Hot Plug) feature
- Compliance with USB 2.0 (Hi-Speed) electrical specification
- Compliance with USB Mass Storage Class Bulk-Only Transport Specification
- Support 480Mbps High Speed (HS) and 12Mbps Full Speed USB operation
- Support ATA/ATAPI Ultra DMA Mode
- Support ATA/ATAPI PACKET command feature set
- Support ATA/ATAPI LBA48 bit addressing mode
- Support dual LUN (Logic Unit Number) with automatically master/slave enumeration
- Support 12MHz external crystal.
- Single-power 3.3V power supply
- 0.18um CMOS technology and 64-pin LQFP ASSP package

#### Quick Reference

Signal Bit Rate	1.5 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-pin LQFP
Applications	USB & SATA products <ul style="list-style-type: none"><li>• Enclosure System</li><li>• Storage subsystem</li><li>• 2 bays storage system</li><li>• Backward compatible Storage system</li></ul>

## Functional Block Diagram

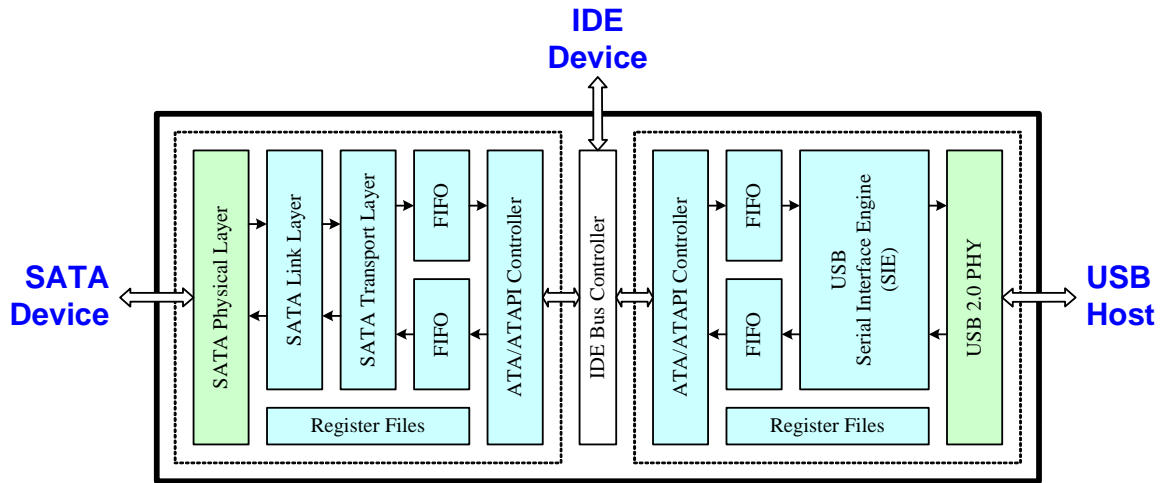


Fig. 1 Functional Block Diagram of JM20337

## Applications

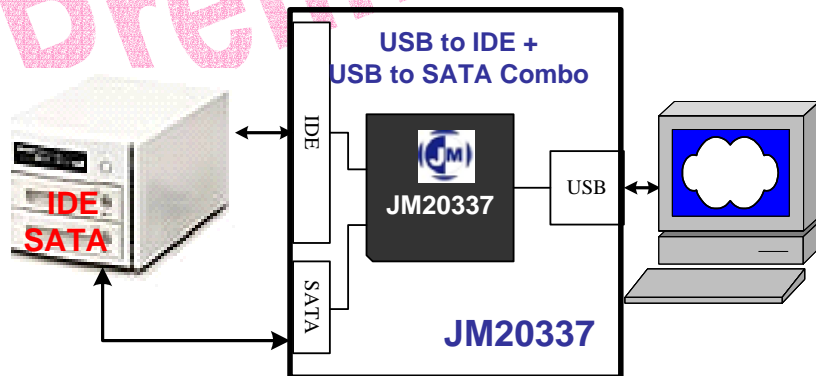


Fig. 2 Hi-Speed USB to SATA & PATA Combo functionality

### Product Information

Name	Description
JM20337	Hi-Speed USB to SATA & PATA Combo Bridge

### Design Kit

1	JM20337 Data Sheet
2	JM20337 Design Guide
3	Application EVB

### Contact Information

Department	Email
Sales	sales@jmicron.com
Tech. Support	fae@jmicron.com