



# JM20338Plus Hi-Speed USB ,SATA & PATA Combo Bridge



## Description

The JM20338Plus is a bridge controller, which translates the communication protocol between SATA, Hi-Speed USB and PATA (ATA/ATAPI) commands. The embedded SATA and USB Phys technology enable users to perform Hi-Speed USB to PATA, Hi-Speed USB to SATA, and SATA to PATA applications in a signal chip. In this chip, the SATA to PATA and PATA to SATA controllers are inherited from JMicron's JM20330, which provides the capability to handle both ATA and ATAPI PACKET commands. The JM20338Plus could apply to the following applications, (1) Hi-Speed USB to dual PATA devices, (2) Hi-Speed USB to PATA + SATA combo, (3) Hi-Speed USB to SATA device, and (4) SATA and Hi-Speed USB combo to PATA device.

## Features

- Compliance with Gen1 & Gen1m of Serial ATA II Electrical Specification 1.0
- Support SATA Spread-Spectrum Clock Technology
- Support SATA II Asynchronous Signal Recovery (Hot Plug) feature
- Compliance with USB 2.0 electrical specification
- Support USB 2.0 High-Speed and Full-Speed Operation
- Compliance with USB Mass Storage Class, Bulk-Only Transport Specification
- Support Dual LUN of USB Mass Storage Class
- Support ATA/ATAPI-7
- 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 PACKET command feature set
- Support ATA/ATAPI LBA48 addressing mode
- Support 12MHz external crystal.
- Optional external memory for customer firmware code
- Support 9 GPIO
- Embedded 3.3V to 1.8V Voltage Regulator
- Single power 3.3V power supply.
- 0.18um CMOS technology with LQFP 128 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	128-pin LQFP
Applications	USB & SATA products <ul style="list-style-type: none"><li>• Enclosure system</li><li>• Storage subsystem</li><li>• Backward compatible Storage system</li></ul>



## Functional Block Diagram

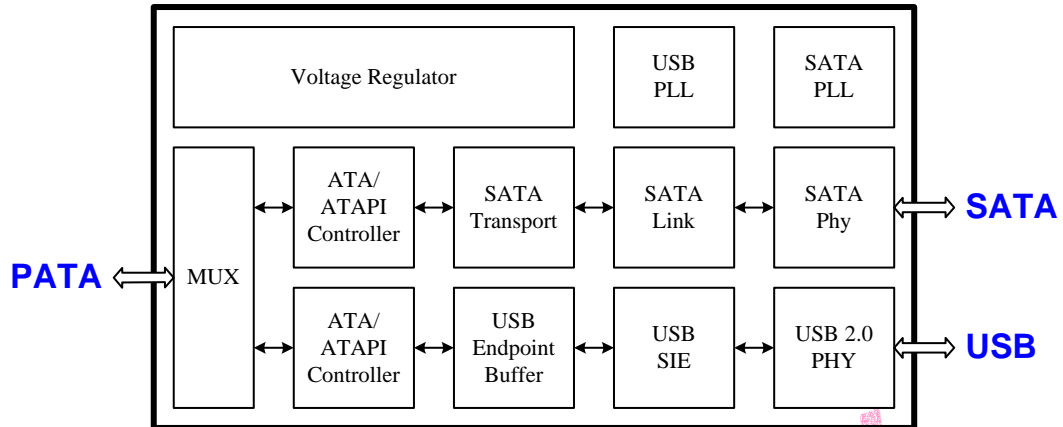


Fig. 1 Functional Block Diagram of JM20338Plus

## Applications

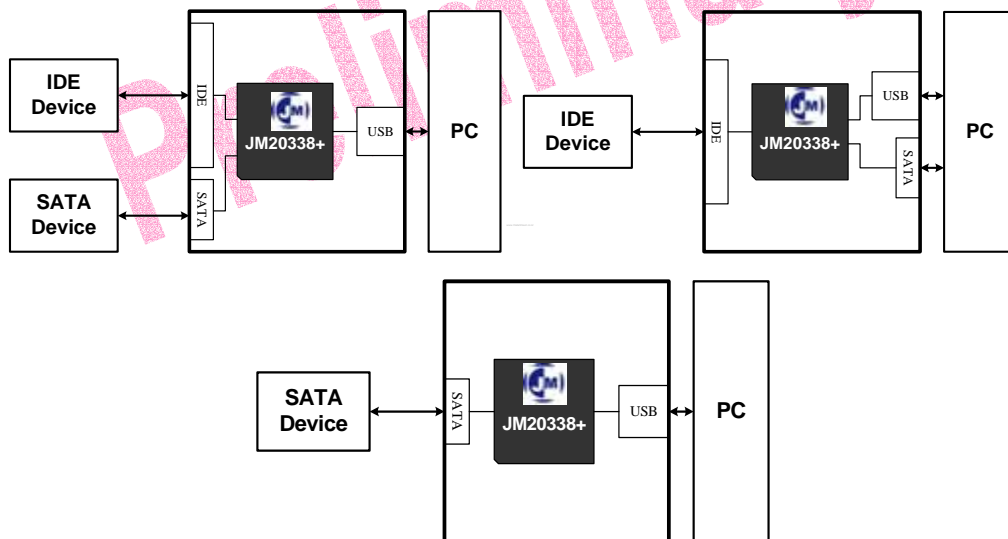


Fig. 2 Hi-Speed USB ,SATA & PATA Bridge

### Product Information

Name	Description
JM20338Plus	Hi-Speed USB ,SATA & PATA Combo Bridge

### Design Kit

1	JM20338Plus Data Sheet
2	JM20338Plus Design Guide
3	Application EVB

### Contact Information

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