JMS539
SuperSpeed USB to SATA II 3.0G Bridge

Description

The JMS539 is a bridge controller, which translates the communication protocol between SATA II 3.0G and SuperSpeed USB commands. The integrated 60MIPS 8051, SATA II, Hi-Speed USB and SuperSpeed USB technology enable users to perform SuperSpeed USB to SATA II 3.0G, applications in a signal chip.

In this chip, the Hi-Speed/SuperSpeed USB controller supports the USB Mass Storage Class Bulk-Only Transport Specification.

Features

- Complies with Gen2i/Gen2m of Serial ATA II Electrical Specification 2.6
- Supports SATA II Asynchronous Signal Recovery (Hot Plug) feature
- Complies with USB 3.0 Specification, USB Mass Storage Class, Bulk-Only Transport Specification
- Supports USB Super-Speed/High-Speed/Full-Speed Operation
- Supports USB HID operation
- Supports USB2.0/USB3.0 power saving mode
- Supports AES-128/256 for data encryption over USB2.0/USB3.0
- Supports external SPI NVRAM for Vendor VID/PID of USB2.0/USB3.0 device controller
- Supports ATA/ATAPI PACKET command set
- 12 GPIOs for customization
- Provides hardware control PWM
- Provides software utilities for downloading the upgraded firmware code under USB2.0/USB3.0
- Design for Win2000, WinXP, WinVista, Win7, MAC 9.2 or later version.
- Supports 25MHz external crystal
- Embedded 3.3V to 1.2V voltage regulator
- 0.13um CMOS technology
- 64 LQFP package (10x10) and 64 QFN package (9x9)

Quick Reference

Signal Bit Rate	5.0 Gbps
Power Supply	3.3V and 1.2V
GPIO Support	UP to 12
ESD Protection	2000 V
Package	64-pin LQFP, 64-pin QFN
SATA Port	1
USB Port	1
Applications	• Enclosure system • Optical storage • Storage system

Preliminary

© JMicron 2008. All rights reserved.
Copying prohibited.

Functional Block Diagram

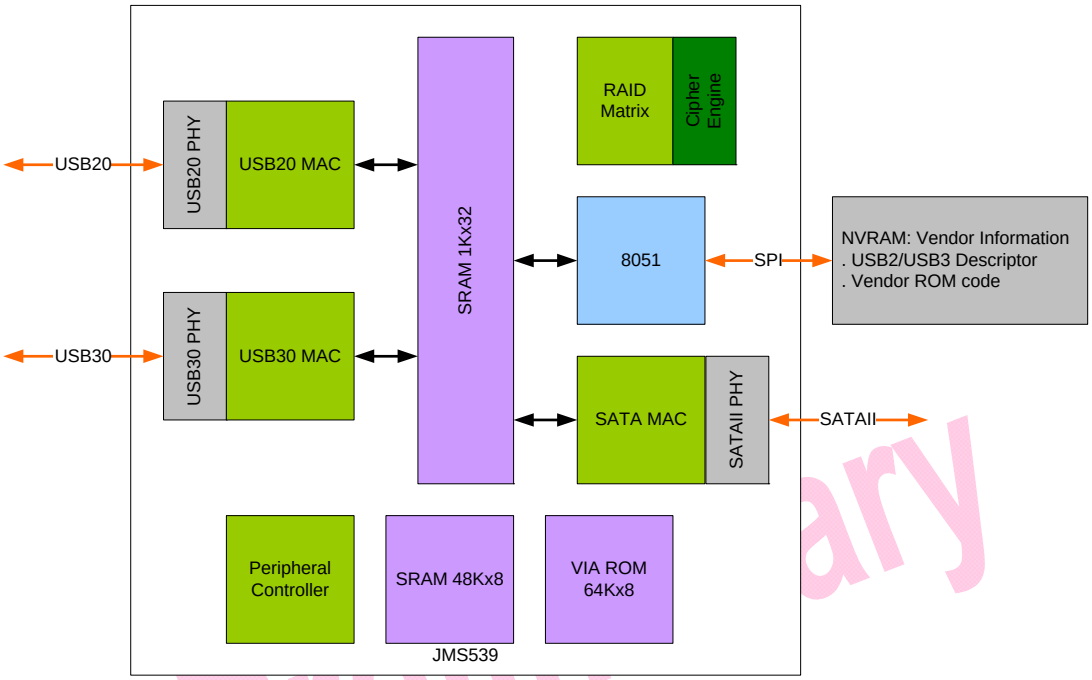


Fig. 1 Functional Block Diagram of JMS539

Applications

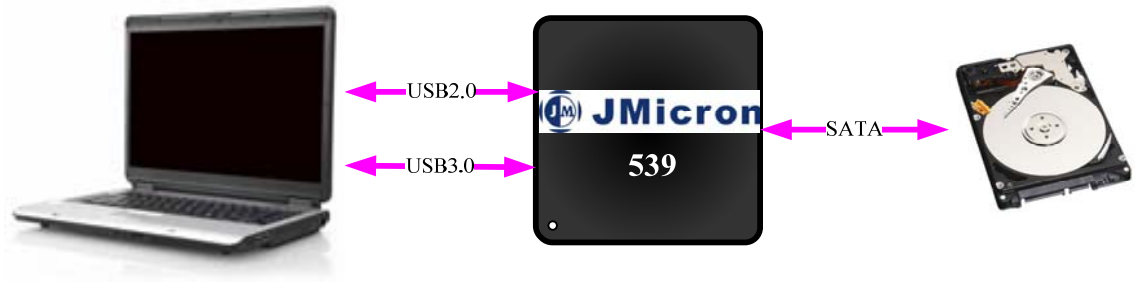


Fig. 2 eSATA & Hi-Speed USB combo to dual SATA Bridge application

Product Information

Name	Description
JMS539	SuperSpeed USB to SATA II 3.0G Bridge

Design Kit

1	JMS539 Data Sheet
2	JMS539 Design Guide
3	Application EVB

Contact Information

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

© JMicron 2008. All rights reserved.
Copying prohibited.