JMB575 Port Multiplier Chip

Overview

JMicron JMB575 is a single chip. It integrated six independent SATA channels and a micro-processor. With proper setting, the chip can be configured as 1 to 5- ports Serial ATA III Port Multiplier or a 5 to 1-port Serial ATA III Port Selector.

JMB575 contains 15 GPIOs which can be configured as various standard interfaces. It also has the capability to load external firmware code to extend its functionality.

JMB575 supports cascaded mode which enables maximum 15 drives connected to one host.

Compliance

- Compliant with *Serial ATA Port Multiplier Spec. Revision 1.2*
- Compliant with *Serial ATA Port Selector Spec. Revision 1.0*
- Compliant with *Serial ATA PHY Electrical Spec. Revision 1.0*
- Compliant with *Serial ATA High Speed Serialized AT Attachment Spec. Revision 3.1*

General

- Integrated 6-port SATA II PHY
- Integrated PLL for SATA II interface
- Total six independent SATA channel
- Integrated uP, PROM and SRAM for firmware programming
- 1.2V core and 3.3V I/O power supply
- Available in 64-pin QFN

SATA

- Supports 6-port 6.0Gbps SATA III interface
- Output swing control and automatic impedance calibration for SATA III PHY

- Supports asynchronous signal recovery
- Supports spread spectrum clocking
- Supports partial / slumber power saving mode
- Automatically speed negotiation
- Supports BIST and loopback mode
- Supports staggered spin-up (Optional)
- Supports Hot-Plug
- Supports asynchronous notification
- Supports ATAPI drives
- Supports command-based and FIS-based switching
- Supports PM aware and non-PM aware host
- Supports cascaded mode
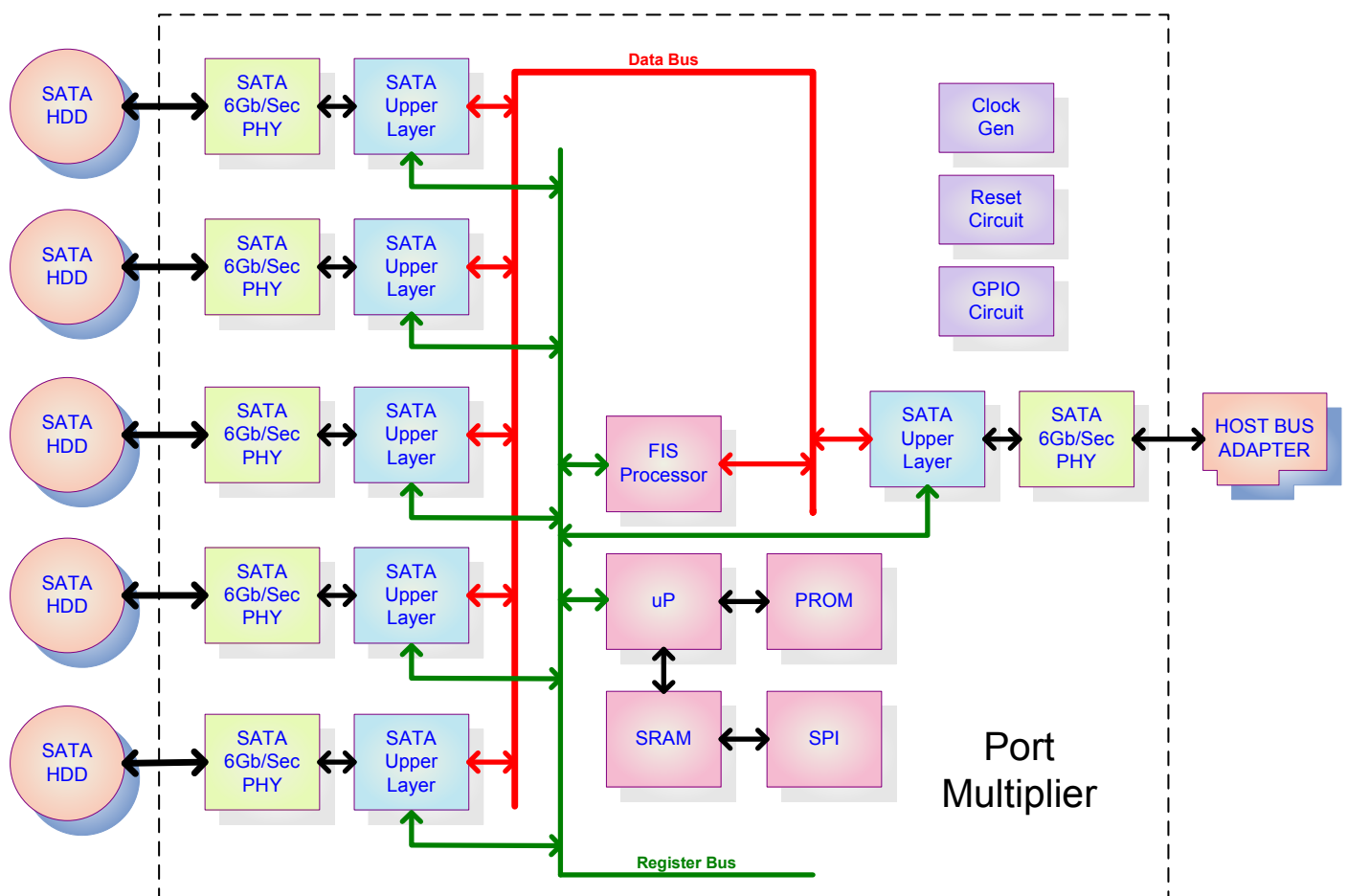- Supports executing host loaded firmware code

GPIO

- Supports 15 GPIOs
- Supports SPI interface

Functional Description

JMB575 integrates six high-speed Serial I/O's, six SATA upper layers, a microprocessor, SRAM, PROM and other control logic into the chip. JMB575 can work as 1 to 5- ports Port Multiplier or 5 to 1-ports Port Selector with internal embedded firmware without extra external flash needed. But it also can use external flash interface and with proper firmware programming to extend its capability.

Block Diagram

Figure Function View of JMB575

Supporting Document

1	Product Brief
2	Data Sheet
3	Application Schematic

Contact Information

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