



JMS568

Super Speed USB 3.0 & SATA 6.0Gbps Bridge Controller

Overview

The JMS568 is a low power consumption and high performance USB 3.0 to SATA 6.0Gbps (bit per second) Bridge controller. The JMS568 is able to reach a data transmission rate above 300M bytes per second when paired with an SSD module using JMicron's JMF667 SSD controller. The readings were measured by IOMeter, a gauge for storage device performance, with a variety of queue depths and worker number settings, on a platform with an xHCI host on an Intel Panther Point C1 stepping PC, running Windows 8 Build 8315 Core 2. Enabling USB Attached SCSI Protocol (UASP) on the JMS568, increased the data transmission rate by as much as 30%.

The JMS568 power consumption is significantly lower than that for its previous generation bridges and its power consumption is compliant with both USB 3.0 and USB 2.0 power requirement specifications. In addition, JMS568 is also compliant with the USB-IF Vbus power requirement.

JMS568 has passed the USB-IF test procedure for USB3.0 products and it won the Windows Hardware Certification approval.

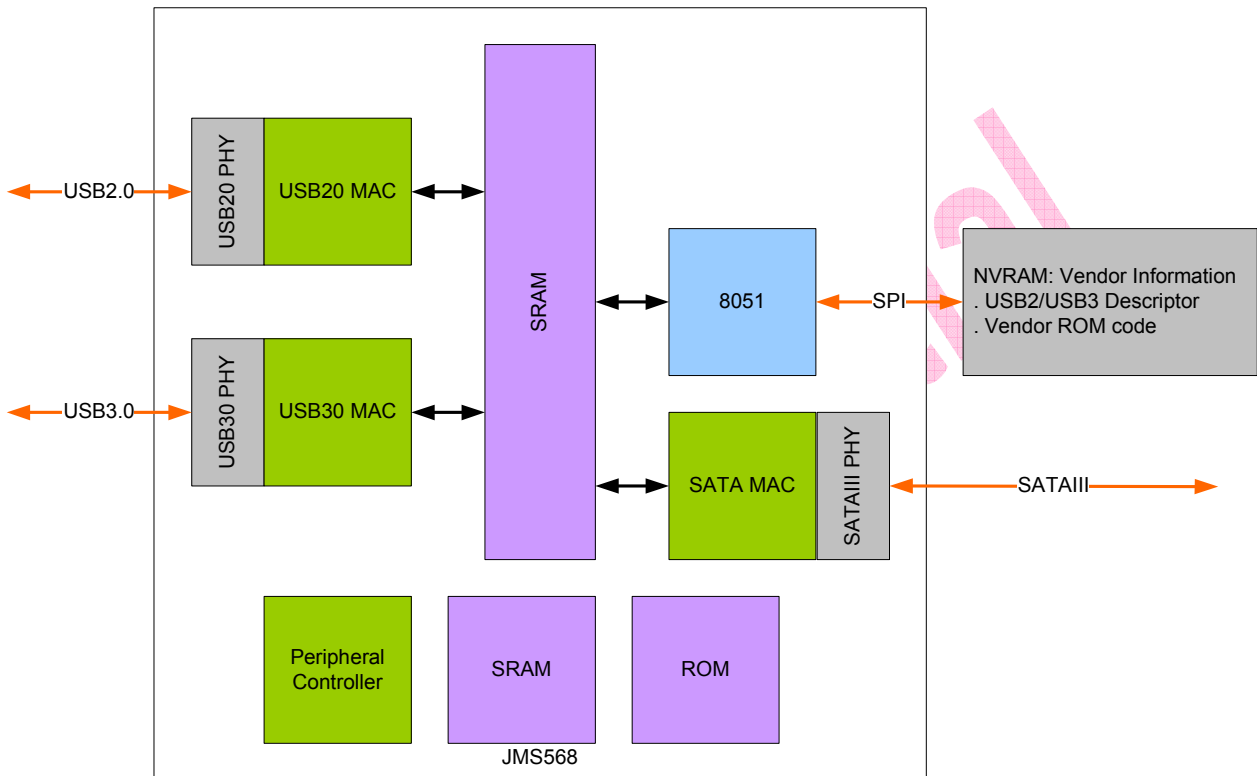
Features

- Complies with Gen2i/Gen2m of Serial ATA II Electrical Specification 2.6
- Complies with Gen3 of Serial ATA III Electrical Specification 3.0
- Complies with USB 3.0 Specification, USB Mass Storage Class, Bulk-Only Transport Specification
- Complies with USB Attached SCSI Protocol (UASP) Specification
- Supports USB Super-Speed/High-Speed/Full-Speed Operation
- Supports USB2.0/USB3.0 power saving mode
- Supports SHA-1/SHA-256 for IEEE-1667 digest calculation <optional by firmware support>
- Supports external SPI NVRAM for Vendor VID/PID of USB2.0/USB3.0 device controller
- Supports ATA/ATAPI PACKET command set
- 10 GPIOs for customization
- Provides hardware control PWM



- Provides software utilities for downloading the upgraded firmware code under USB2.0/USB3.0
- Design for Win XP, Win7, Win8, MAC 10.3 or later version.
- Supports 25MHz external crystal
- Embedded 2.5V to 1.0V voltage regulator
- QFN48 package (6x6)

Functional Block Diagram



Applications

