

PL2775 SuperSpeed USB 3.0 to Dual SATA Bridge Controller

OVERVIEW

The PL2775 is a low-power single-chip SuperSpeed USB 3.0 to Dual SATA II compliant bridge IC controller specially designed for external USB 3.0 dual-port RAID and non-RAID applications. It supports RAID 0 (striping) and RAID 1 (mirroring) as well as JBOD (Just a Bunch of Disks) and BIG (single logical disk) mode configurations. The PL2775 can perform seamless protocol transfer between the USB Host and dual SATA interface storage devices like Hard Disk Drives, Optical Disk Drives, and Solid-State Drives. SuperSpeed USB has data transfer bandwidth of up to 5Gbps offering 10X performance increase over Hi-Speed USB (480Mbps) while still retaining backward compatibility and interoperability with all USB 2.0 and USB 1.1 devices, hosts, and hubs.

The PL2775 also integrates a high performance 8-bit microcontroller which can be used to support versatile system applications such as one button backup, power control, and other USB port features. The PL2775 chip is also implemented according to the USB Bulk-Only Mass Storage Class Specification v1.0.

FEATURES

- USB-IF SuperSpeed Logo Certified (TID 340740018)
- Compliant with USB 3.0 and USB2.0 Specification
- Serial ATA Revision 3.0 Specification Compliant
- Ultra-low power 1.2V core operating voltage by 0.13um process
- Supports RAID0, RAID1, JBOD and BIG modes
- RAID Management Software and SDK for RAID AP development
- Background Auto Data Recovery
- Support Serial ATA Hotplug
- Firmware upgradeable through USB interface
- Multi-function General Purpose IO (GPIO) pins including PWM/I2C/SPI features
- Applications Support : One Button Backup, Autorun Virtual CD, Password Security, Disk Capacity Indicator, Power Management
- Support single 30MHz reference clock
- Package Type : LQFP64

BLOCK DIAGRAM

