

PL-2528

Advanced Hi-Speed Flash Disk Controller

OVERVIEW

PL-2528 is an advanced Hi-Speed USB Flash Disk controller that allows data transfer between USB-equipped hosts (such as PC, PDA, MP3 Player) and NAND Flash Memory through USB port interface at transfer rate of 480Mbps. Advanced mode design allows for PL-2528 USB Flash devices to reach enhanced R/W performances of 34MByte/sec and 24MByte/sec respectively. It also allows interface of up to 8 NAND Flash Memory. The PL-2528 is the best solution for low power, high performance and compatibility, plug-and-play portable storage media. The available NAND flash memories on board can generally be used as a normal single disk or partitioned into a standard/open mass storage device and a secured mass storage device. The sizes of the partitions can be easily configured and adjusted by end-users using the USB Flash Disk (UFD) utility program. To access the secured mass storage device or disk, users must first enter the correct password using the UFD utility program. Two new features of the PL-2528 is the Read-Only and Hidden Partition (Optional). The PL-2528 allows vendors to create a read-only partition for preloading their software driver and application program to save on driver CD cost and enhance user-friendliness. If a secured partition and password is set, this Read-Only partition will toggle with the Secured partition disk after the password is confirmed. When you plug-in the device, the Read-Only partition and the open partition will first appear and after the end-user enters the password, the Read-Only partition will be removed and the Secured partition will appear (refer to the partition configuration table on the succeeding page). The Hidden partition allows vendors to put their own private application programs and using a special utility to access it. This Hidden partition is not accessible and cannot be seen by end-users. Prolific provides a vendor manufacturing kit utility to customize and preset these special partitions. To take advantage of Plug and Play, the mass storage device is implemented according to the USB mass storage device class. Since the default driver is included within most of the current OS, no extra driver is needed for Linux, Mac OS, Windows® ME/2000/XP/2003 Server and above. Prolific provides a separate Windows 98 driver and supports driver and utility customization. The PL-2528 also provides options to customize this chip in showing the vendor identity. Users could modify the Vendor ID, Product ID, Language ID, manufacturer string, and product string of the final product. Production configuration and test tool utilities are also provided by Prolific.

FEATURE

- Full compliance with the Universal Serial Bus Specifications v1.1 and v2.0
- Integrated USB 2.0 Transceiver Macrocell Interface (UTMI) and Serial Interface Engine (SIE)4-bit ECC
- Flash Write Protect control support
- Supports Samsung/Toshiba/Hynix/ST/Infineon/Micron SLC NAND type flash memories
- Supports Samsung/Hynix/Sandisk/Toshiba MLC flash memories
- 8/16-bit Flash Data I/O
- Dual-channel mode support
- Universal flash memory support
- In-System Programming to upgrade firmware easily
- Supports up to 8 NAND flash memories
- Non-Stop Writing® (NSW) Technology for high performance
- Build-in 5V to 3.3V Regulator
- LED indicator to show access status
- Software support includes Disk partitions and password check for security disk, PC boot-up as USB Zip Disk and USB Hard Disk, and CD-ROM type emulation.
- Support in Windows® ME, 2000, XP and above (Prolific provides Windows 98 driver support), Linux Kernel 2.4.18 and above, MAC OS 9.x and above (Apple provides Mac OS 8.6 driver support).