

## NET 2282 Key Features

- ◆ PCI v3.0 – 33/66 MHz, 32-bit bus
- ◆ Hi-Speed USB 2.0 peripheral port
- ◆ Ultra fast performance of up to 480Mbps
- ◆ Integrated 8051 CPU @ 30 MHz
- ◆ 32K of integrated RAM for emulating main system memory and storing descriptors
- ◆ Descriptor-based DMA controllers (4) for automatic data transfers
- ◆ USB Auto-Enumeration
- ◆ Compliance to USB 2.0 specification
- ◆ Ideal for PCI embedded systems
- ◆ Easy hardware integration
  - ◆ 32-bit PCI interface

## NET 2272 Key Features

- ◆ Hi-Speed USB 2.0 peripheral port
- ◆ Ultra fast performance of up to 480Mbps
- ◆ Lowest active power requirements (186mW)
- ◆ Lowest standby power (8.1µW)
- ◆ Variable I/O voltage (1.8V to 5.0V)
- ◆ Compliance to USB 2.0 specification
- ◆ Firmware available for Media Transfer Protocol (MTP) and Mass Storage
- ◆ WinXP, Vista, Linux, and WinCE Support



### Application:

## **Digital Video Recorder & Set-Top Box**

### PLX Products:

## **NET 2282 – PCI to Hi-Speed USB 2.0 Peripheral Controller**

## **NET 2272 – Local Bus to Hi-Speed USB 2.0 Peripheral Controller**

### Key Benefit:

## **Quick File Transfer, Easy Connectivity**

### **What... When... now Where!**

Digital Video Recorders (DVRs) have forever changed the way people watch TV. Consumers no longer have to rush home to catch their favorite shows, but instead, can enjoy a night out with friends or go out the ballgame, and then go home to find recorded shows waiting for them. However, even with this ability to make TV work on their own schedules, mobile consumers find that their TV experience is still confined to their own homes.



With that in mind, DVRs need to allow people to not only watch what they want, *when they want*, but also *WHERE they want!* The mobile consumer demands a solution to move their recorded TV shows from their DVRs to their mobile devices (e.g. UMPC, portable media player (PMP)).



Since the majority of mobile PCs and PMPs already support USB (host mode), PLX's Hi-Speed USB 2.0 peripheral controllers are the high speed connectivity solution for today's DVRs.

## Easy Hardware Development

The NET 2282 USB controller is optimized for adding a Hi-Speed USB 2.0 peripheral port on PCI-based DVRs. The PCI bus on the NET 2282 connects directly to PCI-based systems, so the hardware design is simple.

For DVRs with a local bus based architecture, the NET 2272 supports a generic 8/16 bit local bus interface that connects without any additional logic (interface looks just like a SRAM connection).

## Digital Rights Management (DRM)

When it comes to moving digital media files, DRM is always a key issue. tru2way™ is a new encryption communication technology used by cable providers and companies in next generation STBs, DVRs, and the latest HDTVs. To allow consumers to easily export media files securely from their DVR/STB using through USB, DVR vendors can partner with mobile devices vendors to offer tru2way support/clients. Consumers will then be able to watch their media files on the mobile devices through the client and a media access key.



Figure 1 - tru2way, recently announced at CES 2008

## Next Generation Set Top Box (STB)

Many of today's STBs already have DVR features to record TV directly. The next generation STB will have many more features including online access and gaming, karaoke, and may even serve as a home media server. As a server, the USB peripheral port will provide the perfect expansion storage solution.

STBs and DVRs with Hi-Speed USB 2.0 will be able to conveniently migrate to USB 3.0 (planned for market adoption in 2009). USB 3.0, at 5Gbps, is designed specifically for transferring digital media files and targets transferring a 25GB movie file in 1.5 minutes.

## Additional PLX Advantages

- ◆ Superior USB 2.0 expertise and support
- ◆ Complete firmware library for many standard USB device classes (Mass Storage, RNDIS, MTP, etc.)
- ◆ Wide Range of Application Notes
- ◆ Schematic and Layout Design Reviews
- ◆ Full USB 2.0 Compliance Testing Support
- ◆ PCI-based development systems
- ◆ Future migration to next generation USB technologies

## Design Tools & Documentation:

### NET 2282:

<http://www.plxtech.com/2282>

### NET 2272:

<http://www.plxtech.com/2272>

### USB Software:

<http://www.plxtech.com/products/NET2000/software/default.asp>

### Available on PLX website:

Data Books, Application Notes, Performance Reports, Migration Guides, Design Guidelines, Video Demos, comprehensive software and more.

### Contact Information

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