

NET2282 Key Features

- ◆ PCI v3.0 – 33Mhz, 32 Bit Bus
- ◆ Hi-Speed USB 2.0 Peripheral Port
- ◆ Integrated 8051 CPU @ 30 Mhz
- ◆ 32K of integrated RAM useful for emulating main system memory
- ◆ Descriptor based DMA controllers (4) for automatic data transfers
- ◆ Sustained throughput up to 40Mbytes/sec
- ◆ PCI Host mode for configuring and controlling PCI devices
- ◆ Low Power 0.18u process ideal for USB Bus Powered Operation



Application:

802.11n Wireless LAN Adapters

PLX Product:

NET2282 – PCI to USB 2.0 Hi-Speed Peripheral Bridge

A New WiFi Standard

802.11n is the newest standard for wireless LAN (WiFi). It is backwards compatible to 802.11g, and offers 4 times the speed with 8 times the range. While a final 802.11n spec is not yet complete, several “pre-N” devices have already reached the market.



802.11n adapters currently come in only 1 form, a PCMCIA card. This makes it easy to add 802.11n capability to a notebook computer. However, this leaves out desktop computers and set top boxes, both of which don't usually have PCMCIA slots.

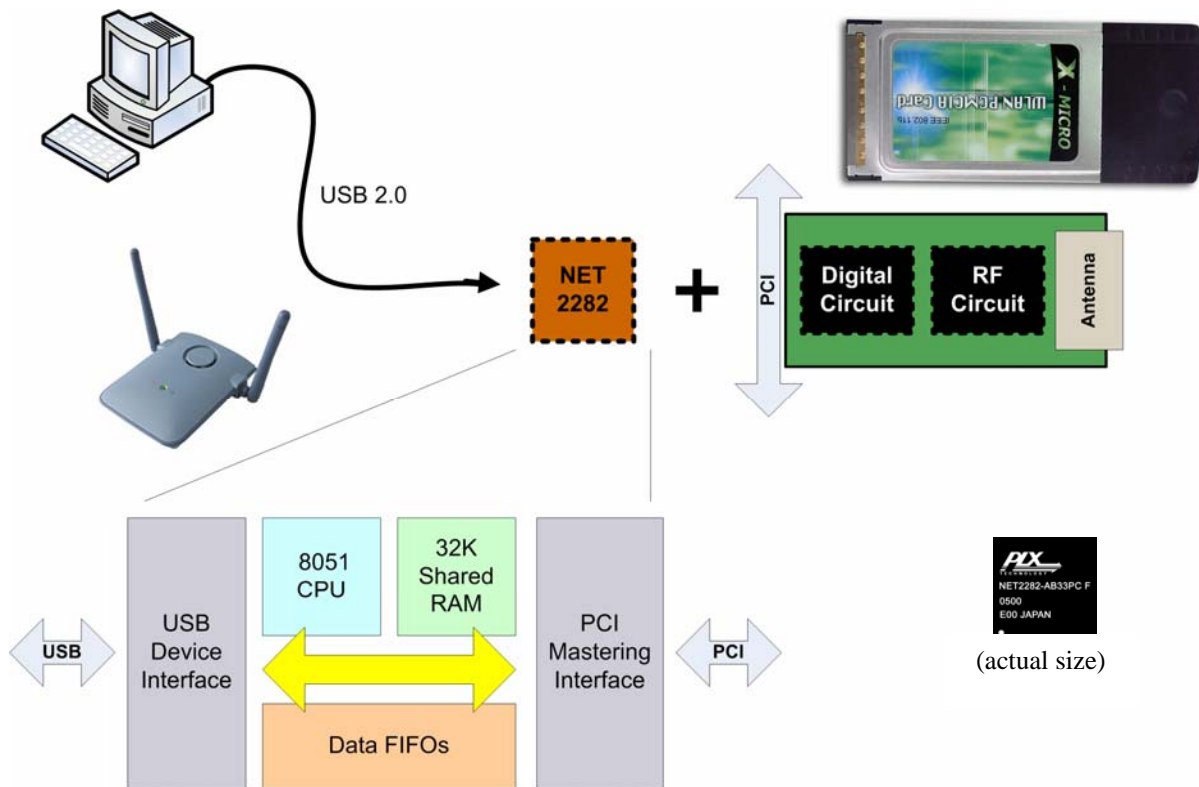
Certainly desktops and set top boxes, due to their stationary nature, can be connected by Ethernet cable. However, consumers have been reluctant to string up cable or to open up their computers to add new cards. A USB based 802.11n adapter offers the consumer a high speed, easy to connect to, and easy to configure wireless solution.

Converting PCMCIA Cards to USB Peripherals

The PLX Technology NET2282 is optimized for migrating PCI based designs to USB. A PCMCIA card, like the current 802.11n adapters, electrically use a PCI interface to connect to a computer.



Instead of a notebook computer configuring the 802.11n adapter, the NET2282 can act as the system host. Its integrated CPU functions as the main processor while its shared RAM emulates main system memory (for holding descriptors or other control data). The NET2282 also includes PCI clock, reset, interrupt, and arbitration pins to compensate for those components usually found in a laptop system.



Converting a PCMCIA card to a USB Peripheral

Additional PLX Advantages

- ◆ Superior USB 2.0 expertise and support
- ◆ Wide Range of Application Notes
- ◆ Schematic and Layout Design Reviews
- ◆ USB 2.0 Compliance Testing
- ◆ Complete firmware library for many standard USB devices (including communications class), and standard APIs for custom applications
- ◆ USB host library for converting legacy PCI drivers to USB drivers
- ◆ Supported in Windows, WinCE, and Linux

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Design Tools & Documentation:

<http://www.plxtech.com/products/NET2000/NET2282/default.asp>

- ◆ DataBook, Application Notes, Migration Guide, Design Guidelines, Linux Gadget Drivers, Development Kit Info, etc.

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2272-SIL-EA-1.0