NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Subpart J of Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

FC CE

Overview

Universal Serial Bus (USB) port technology has emerged in response to the proliferation of external peripheral devices (keyboards, mice, scanners, digital cameras, removable drives, etc.), that are increasingly being connected to the latest generation of PCs. The USB behaves in a similar fashion to conventional bus ports (i.e., serial, parallel, PS/2), but is much faster, and since it does not require any IRQs, more devices can be attached to the system, and the problem of IRQ conflict is eliminated.

The PU-212 is a PC Card 2 port USB 2.0 host. This credit card sized host is the perfect way to add two USB 2.0 ports to standard notebook PCs. Installation is quick and easy, simply slide the PC card into the Type II CardBus slot on your notebook, and you're USB ready!

The PU-212 represents the second generation of USB standards. USB 2.0 technology offers the advantages of high-speed data throughput, (up to 480Mbps), chainability - the ability to daisy chain up to 127 USB devices, "Plug and Play", Hot-Swapping (connection and disconnection) on the fly, and allows users to take advantage of the USB 2.0 technology on their current USB 1.1 systems.

With USB 2.0, the latest high-speed peripherals can be connected externally, eliminating the need to install complicated hardware.

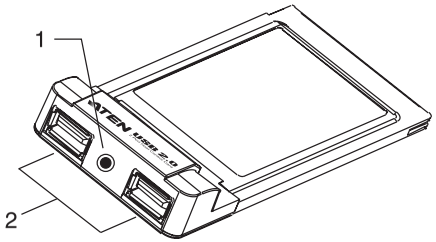
Features

- Easy Installation
- Compliant with USB Version 2.0 - transfer speeds of up to 480 Mbps (40 times faster than USB 1.1)
- Fully Forward and Backward Compatible to USB 1.1
- Provides Two External USB Type-A Ports
- Automatically Switches to the Peripheral's Highest Supported Speed
- Supports 32-Bit CardBus Type II Slots
- Improves peripheral performance for: Printers, Scanners, PC Cameras, Device Storage Units, Broadband Network Connections
- Compliant with OHCI v1.0a and EHCI v0.95

System Requirements

- Windows XP / 2000 / ME / 98SE
- A Type II CardBus PC Card slot

Components



1. DC Input Jack

   If you choose to use an optional DC Power Adapter (requires separate purchase), its cable plugs in here

   Note: Ordinarily, the hub gets its power from the computer, but large, or power hungry peripherals may require a power adapter for stable operation.

2. USB Type A Ports

   The cables from your USB peripherals can plug into either port.

Windows Driver Installation

Windows XP:

Windows XP has native USB driver support. If USB 2.0 drivers aren't already installed in your computer, get them by clicking the **Start** button, and then selecting **Windows Update**.

Systems prior to XP:

1. With your notebook booted up, slide the PU-212 into its Type II Cardbus slot.
2. When the *New Hardware Wizard* appears, Click **Cancel**.
3. Insert the driver disk that came with your product into your CD drive and wait for autorun to display its contents.
4. Open the folder for *USB 2.0 Host Controller Driver (NEC)*; open the folder for your product; open the folder for your version of Windows.
5. Double Click the driver icon. The drivers are now copied to your system.
6. After the drivers have been copied to your hard disk, a dialog box appears confirming that the installation has finished. Click **Finish** to reboot your computer and complete the installation.

To check that the driver was correctly installed:

1. Navigate down through the following folders: *My Computer*; *Control Panel*; *System*.
2. Select the *Device Manager* tab.
3. Click the **Plus** sign in front of Universal serial bus controller.

   If the driver was installed correctly, the following entries should appear:

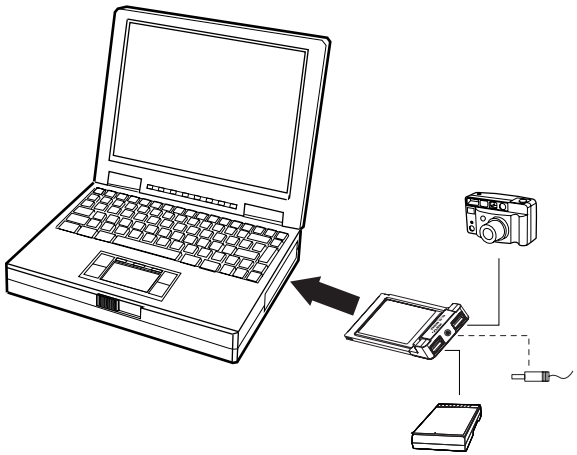
   NEC PCI to USB Open Host Controller
   NEC PCI to USB Open Host Controller
   USB 2.0 PCI to USB Enhanced Hub Device
   USB Root Hub
   USB Root Hub
   USB 2.0 Root Hub Device

   Note: Depending on the Windows version, there may be some slight variation in the wording.

Connecting Peripherals

After Windows reboots:

1. If you choose to use an optional DC Power Adapter, plug the DC Adapter into an AC source; plug the Adapter cable into the DC Jack.
2. Plug your USB peripherals into any available port.



Specifications

Function	Specification
USB Connectors	2 Type-A
Transfer Rate	1.5 / 12 / 480 Mbps (bits per second)
USB Specs	v2.0 and v1.1 Compatible
DC Input	5V, 800mA / port
OS Support	Windows XP; Windows 2000; Windows Me; Windows 98SE
Operating Temperature	5 ~ 40°C
Storage Temperature	-20 ~ 60°C
Humidity	0 ~ 80% RH, Noncondensing
Housing	Plastic
Weight	50g
Dimensions (L x W x H)	115.5 x 54 x 13.8 mm

Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION EXCEED THE PRICE PAID FOR THE PRODUCT.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

USB 2.0 CARDBUS HOST CONTROLLER

USB 2.0

User Manual

PU-212

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

This package contains:

- 1 PU-212
- 1 Driver CD
- 1 User Manual

If anything is damaged or missing, contact your dealer.

Manual Part No. PAPE-1193-300
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