

PN-TPC1W Users Guide[©]

Version – 1

Getting Started

Introduction to PN-TPC1W

The PN-TPC1W is a full-featured High Definition PC based upon NVIDIA[®] ION[™] architecture. Targeted for Commercial applications such as interactive digital white boards, the PN-TPC1W has been optimized for reliable operation with the Sharp[®] PN-L601B touch screen display. The PN-TPC1W includes the Sharp Pen Software[™] application pre-installed on the hard disk. It also has the flexibility to run most third party software and custom applications. The PN-TPC1W supports true 1080P video with hardware assisted support for formats such as MPEG2, H.264, and WM9. The PN-TPC1W was designed with display integration in mind and features a full complement of video outputs including HDMI[®], DVI, and VGA. The unit also includes an RS232 port for display control and a custom mounting bracket specially designed to attach behind a Sharp PN-L601B touch screen display. The PN-TPC1W's all metal chassis and small form factor make it ideal for commercial applications requiring a powerful yet compact PC.

Package Contents

The packing box should contain the following items:

- Technovare[™] PN-TPC1W
- AC Power Adapter
- Mounting Kit
- HDMI[®] Cable
- Connection Diagram
- This Users Guide

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to 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 instructions contained in this manual, may cause harmful interference to radio and television 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 THE RECEIVER
- CONNECT THE EQUIPMENT INTO AN OUTLET ON A CIRCUIT DIFFERENT FROM THAT OF THE RECEIVER
- CONSULT THE DEALER OR AN EXPERIENCED AUDIO/TELEVISION TECHNICIAN

NOTES:

Connecting this device to peripheral devices that do not comply with Class B requirements, or using an unshielded peripheral data cable, could also result in harmful interference to radio or television reception.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

Specifications

- **Chipset**
 - NVIDIA® MCP7A-ION™ Series
- **Size**
 - Mini-ITX form factor
 - Case: 7.5" x 7.4" x 1.75"
- **Microprocessor support**
 - Intel® ATOM™ N330 1.6 GHz CPU (onboard)
 - Support for 533 MT/s (533MHz FSB)
- **Operating systems:**
 - Supports Windows® XP® 32bit/64bit and Windows Vista® 32bit/64bit
 - Supports Linux®
 - Windows XP Pro SP3 installed
- **Software Installed:**
 - Sharp® Pen Software™ Application
 - Microsoft® Internet Explorer®
 - Microsoft PowerPoint® Viewer
 - Windows Media® Player
 - QuickTime® Player
 - Adobe® Flash® Player Plug-in
- **System Memory support**
 - Supports DDRII667/800.
 - Supports up to 4GBs (2GB installed – both slots occupied and need to remove the current memory modules to upgrade.)
- **USB 2.0 Ports**
 - Supports hot plug and play
 - Six USB 2.0 ports (rear panel ports)
 - Four from onboard USB headers
 - Supports USB 2.0 protocol up to 480 Mbps transmission rate
- **Hard Disk Drive**
 - 2.5" 160GB
- **Onboard Serial ATA II**
 - Independent DMA operation on four ports
 - Onboard SATA header
 - Rear panel e-SATA
 - Data transfer rates of 3Gb/s.
- **On board RTL8211 CL Gigabit LAN**
 - Supports 10/100/1000M bps operation

Specifications (con't)

- **Onboard Audio**
 - Azalia™ High-Definition audio
 - Supports 6-channel
 - Supports Jack-Sensing function (under Windows)
- **Green Function**
 - Supports ACPI (Advanced Configuration and Power Interface)
 - RTC timer to power-on the system
 - AC power failure recovery
- **Onboard Graphics support**
 - Integrated 300MHz DAC for analog displays with resolutions up to 1920x1440 at 75Hz.
 - Integrated GeForce® 9400m GPU, Supports DX10
 - VGA / DVI / HDMI® output support (Dual Header capable)
- **Integrated HDMI® Interface with HDCP**
 - Supports DVI or HDMI 1.3 interfaces
 - Secure digital audio merged from integrated HDA codec with no external audio signals required
 - Support for HDCP 1.3 using soft or hard HDCP keys
 - HDCP encryption support when configured as DVI or HDMI link without the need for external HDCP key crypto ROM
- **Dual Head Display Controller**
 - Full NVIDIA nView™ multi-display technology capability with independent display controllers
 - Each controller can drive same or different display contents to different resolutions and refresh rates
- **Expansion Slots**
 - One Mini PCI Express slot. (Optional WiFi module must occupy this slot if ordered)
- **Environmental**
 - Operating Temperature: 0° to 40° C
 - Operating Humidity: 80% maximum relative humidity, non-condensing
- **Power**
 - Input Voltage: 19V 4.7A
 - Power Dissipation: 30 Watts

Mounting PN-TPC1W on Sharp PN-L601B Displays

1. Before beginning

Make sure to turn off the monitor and remove the AC power.

2. Items needed

- Sharp PN-L601B Touchscreen Display
- PN-TPC1W
- Mounting Plate
- AC Power Adapter
- 4 x M4 (0.7x10mm) screws
- 2 x M3 (0.5x5 mm)
- Phillips® Screw Driver



Figure 1

3. Attach the mounting plate

There are 8 holes on the mounting plate, but only use 4 holes to match the monitor's mounting holes depending on the monitor model.

The mounting plate is attached to a similar Sharp "PN" series display as an example in Figure 2.

Secure the mounting plate to the monitor with four included M4 screws.



Figure 2

4. Set the AC power adapter in place

Place the AC power adapter into the holder on top of the mounting plate as in Figure 3. AC power cord faces inside and the DC power cord to the PN-TPC1W faces outside.



Figure 3

5. Install the PN-TPC1W

If you look at the top side of the PN-TPC1W before sliding it into the mounting plate as in Figure 4, there are two small slits near the edges on the PN-TPC1W and two small fingers on either side of AC power adapter holder on the mounting plate.

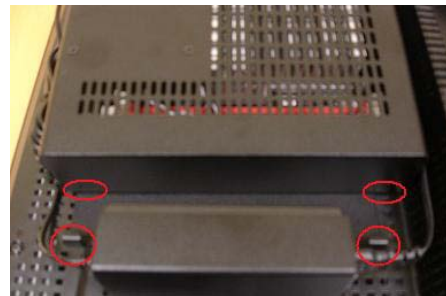
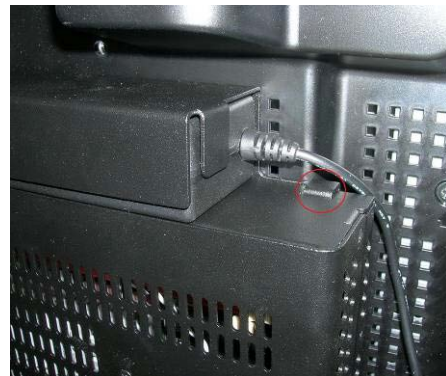


Figure 4

As you slide the PN-TPC1W into the mounting plate, insert the two fingers into these slits as in Figure 5.

There are two fingers on the bottom of the mounting plate to catch the PN-TPC1W in place as shown in Figure 6, and they need



Installation

to be tightened with two include M3 screws.

6. Finish

Plug in the DC power cord into the PN-TPC1W's power connector as in Figure 7.



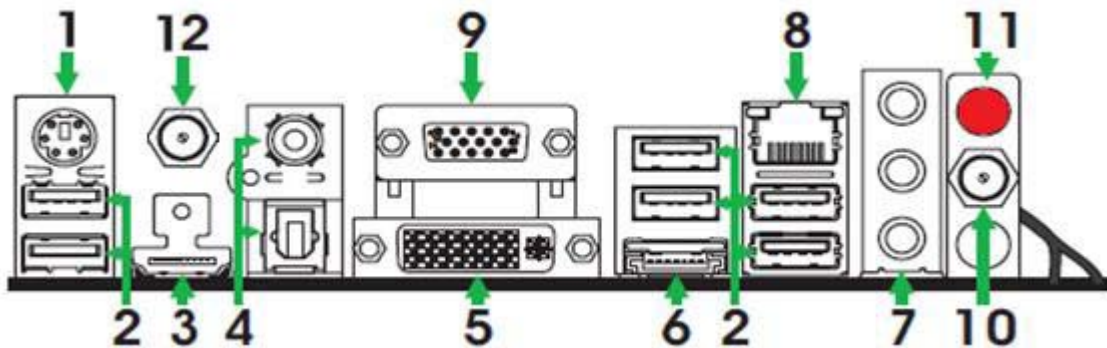
Figure 7

Figure 5



Figure 6

Rear Connector Layout



1. PS/2 keyboard connector
2. USB Connectors
3. HDMI[®] Port
4. S/PDIF Out (Coaxial / Optical)
5. DVI Connector
6. eSATA Connector
7. Audio Port 2-Channel 4-Channel 6-Channel
 Blue Line-In Rear Speaker Out Rear Speaker Out
 Green Line-Out Front Speaker Out Front Speaker Out
 Pink Mic In Mic In Center/Subwoofer
8. LAN Connector (with LED status indicator)
 Yellow/Light Up/Blink = 10 Mbps/Link/Activity
 Yellow and Orange/Light Up/Blink = 100 Mbps/link/Activity
 Yellow and Orange/Light Up/Blink = 1000 Mbps/link/Activity
9. VGA Port

Rear Connector Layout (con't)

10. Power Connection (refer to the figure in the previous page)
Use only the AC power adapter supplied with the system.
Input: 100~240V AC 1.5A
Output: 19V DC 4.74A



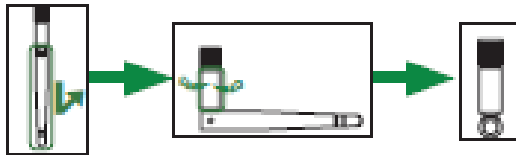
Plug the 19V AC/DC adapter (as in the figure 1 above) to the PN-TPC1W's power input jack (as in the figure 2).

11. Power Button

This button will stay lit if the PN-TPC1W is powered on. If the PN-TPC1W doesn't power up after the AC is connected, then press this button to power up. If normal Windows shutdown is not shutting down the PN-TPC1W, then press this button for more than 4 seconds will turn off the PN-TPC1W. In this case, run Disk Cleanup in the Windows next time the PN-TPC1W is powered up.

12. WiFi antenna connector (optional; refer to the figure in the previous page)

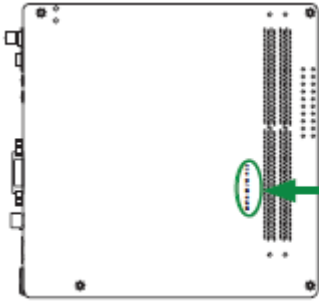
Install the enclosed antenna to the WiFi connector and turn clockwise.



Orient the antenna mast to achieve optimum reception and tighten the antenna base to the WiFi Connector.

Installation

PCB Version



The bottom side of motherboard PCB shows "236-DA108-0J00F"
Motherboard PCB Version:00
The bottom side of motherboard PCB shows "236-DA108-0J10F"
Motherboard PCB Version:01

How to Recover to Factory Installed Condition

1. Before beginning

Make sure that all the data including contents and programs you installed are backed up. If you are trying to recover from a bad HDD, please have a qualified technician runs diagnostics and replaces defective components. If the unit is in warranty, please contact Sharp Customer Service.

2. Items needed

Recovery DVD (comes with the unit)
USB DVD Drive

3. Windows® OS installation from Recovery DVD

- Attach USB DVD Drive to one of the 6 available USB ports on the back of the unit.
- Insert the recovery DVD and reboot the PC.
- Follow instructions and install Windows OS.
- Remove the recovery DVD and reboot.

4. Install System Drivers from Recovery DVD

Insert the recovery DVD.
Install Chipset, HD audio, HDMI audio, and WiFi drivers.

5. Install 3rd Party Software from Recovery DVD

Microsoft® Internet Explorer® 8
Windows Media® Player 11
Microsoft PowerPoint® Viewer 2007
Adobe® Flash® Player 10
Apple® QuickTime® 7
Media Player Codec Pack v.3.9.5

6. Install Sharp Pen Software™ & Optimize Windows

Follow instructions from the included Sharp Pen Software operating manual.

Support & RMA

Warranty service is available from a Sharp® Authorized Service Center located in the United States.

To receive repair handling instructions and to find the location of the nearest Sharp Authorized Service Center, please call Sharp toll free at 1-800-BE-SHARP (1-800-237-4277).

If it is necessary to ship the Product for servicing, please be sure it is insured and packaged securely. Sharp shall not be responsible for lost, stolen or misdirected mail or for damage to the product incurred during shipping. Please have proof of purchase available when requesting warranty service.

TO OBTAIN PRODUCT INFORMATION OR ACCESSORIES,
CALL **1-888-GO-SHARP** OR VISIT www.SharpUSA.com

Trademarks

Sharp, Sharp Pen Software and related trademarks are trademarks or registered trademarks of Sharp Corporation and/or its affiliated entities.

NVIDIA, ION, GeForce and nView are trademarks or registered trademarks of NVIDIA Corporation.

Intel, Atom and Azalia are trademarks or registered trademarks of Intel Corporation in the U.S. and other countries.

Microsoft, Windows, Internet Explorer, PowerPoint, Windows Media, Windows Vista and Windows XP are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

Apple and QuickTime are trademarks or registered trademarks of Apple Inc.

Linux is a registered trademark of Linus Torvalds in the U.S. and other countries.

HDMI is a registered trademark of HDMI Licensing LLC.

Phillips is a registered trademark of The Phillips Screw Company, Inc.

Technovare is a trademark of Technovare Systems Inc.

All other trademarks are the property of their respective owners.

Product specifications and design are subject to change without notice.

End

<End of Document>