

SUNIX Parallel Communication Board

User Manual

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Safety Information

1. Keep this User's Manual for future reference.
2. Always read the safety information carefully.
3. Keep this equipment away from direct sunlight, or in humid or damp places.
4. Do not place this equipment in an unstable position, or on vibrating surface before setting it up.
5. Do not use or place this equipment near magnetic fields, televisions, or radios to avoid electronic interface that affects device performance.



Table of Contents

1. HARDWARE INSTALLATION	3
2. PIN ASSIGNMENT.....	4
3. DRIVER INSTALLATION	5
3-1 Windows Driver install	5
3-2 Linux Driver install	6
4. HARDWARE VERIFICATION	8
5. PORT CONFIGURATION	9
5-1 How to Confirm Parallel Board System Resource.....	9
5-2 How to Modify LPT Port Number	12
5-3 How to Install Printer	15
6. TROUBLESHOOTING	19

1. Hardware Installation

PCI / PCI Express communication board

The hardware installation of parallel communication Board is easy to carry out. Before inserting the card into the PCI or PCIe bus, please follow the detailed steps given below to install the board in your computer.



SAFETY FIRST

To avoid damaging to the computer, make sure to remove any power connection before card installation.

Step 1: Turn your PC's power off, and shut off the power to any peripheral.

Step 2: Remove the power plug from the plug socket.

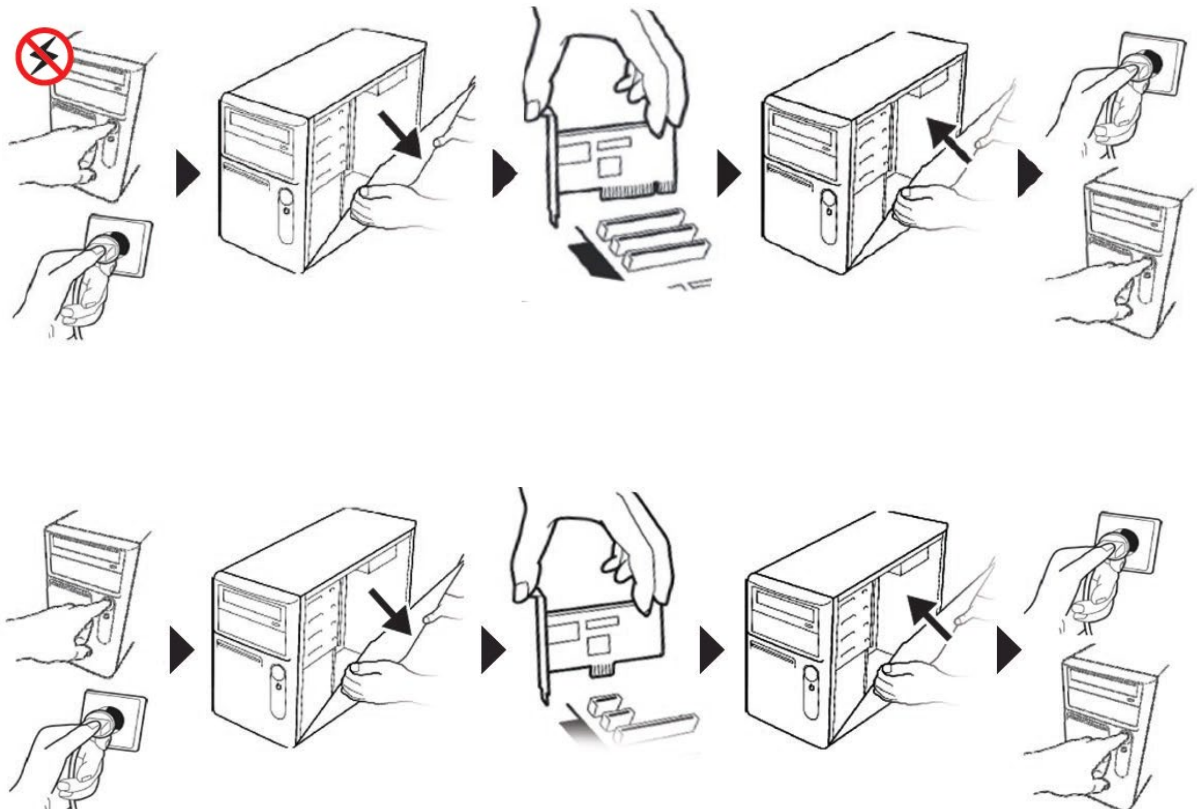
Step 3: Remove the cover from the computer case.

Step 4: If fitted. Remove the metal cover plate on the rear of a free PCI or PCIe slot.

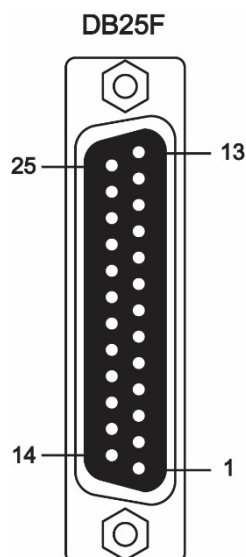
Step 5: Insert PCI or PCI Express Parallel Communication Board into the free PCI or PCIe slot and screw it firmly on the bracket side.

Step 6: Place the cover back onto the computer.

Step 7: Insert the plug into the plug socket.



2. Pin Assignment

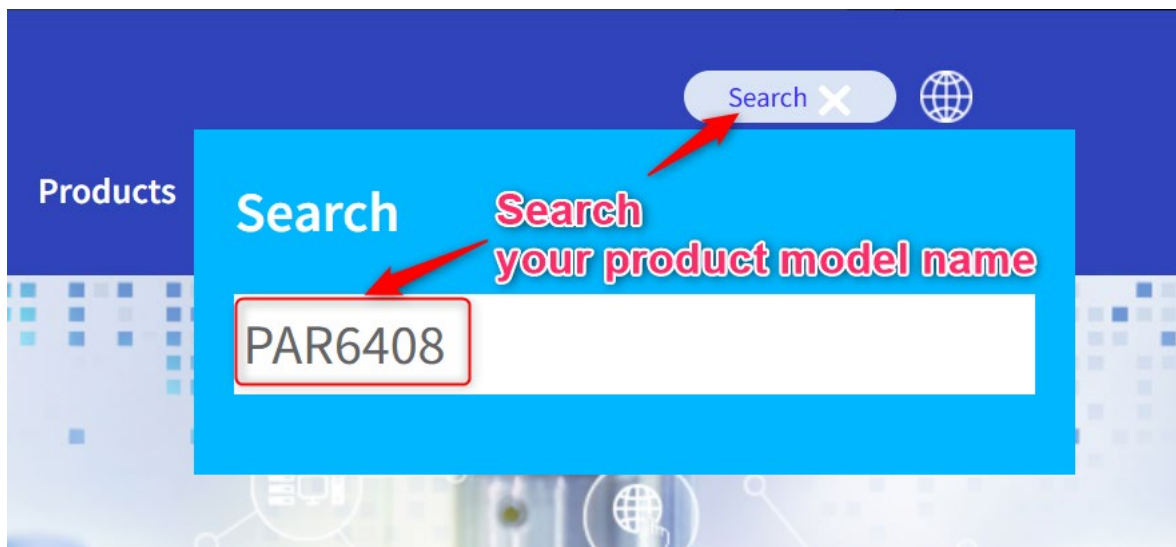


PIN	DB25F	PIN	DB25F
STROBE	1	AUTO FEED	14
DATA0	2	ERROR	15
DATA1	3	INT	16
DATA2	4	SELECT INPUT	17
DATA3	5	GND	18
DATA4	6	GND	19
DATA5	7	GND	20
DATA6	8	GND	21
DATA7	9	GND	22
ACKNOWLEDGE	10	GND	23
BUSY	11	GND	24
PAPER EMPTY	12	GND	25
SELECT	13		

3.Driver Installation

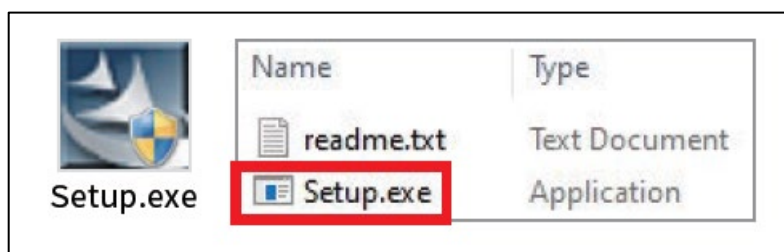
3-1 Windows Driver install

(1) You can download the latest driver from SUNIX official website (<http://www.sunix.com>)



(2) Please execute Setup.exe to install driver. Driver InstallShield Wizard will show up and please wait for driver install procedure running.

Please plug the board in an available I/O slot first, before installing the driver.
Unzip the software file and run setup.exe under Windows operating system.



3-2 Linux Driver install

This installation guide describes the procedures to install the PCI parallel board in Linux kernel 2.x, 3.x and 4.x. Please refer to "snx_Vx.x.x.x.zip" for driver installation detail in CD Driver (Linux folder) directory.

: \ PCI_IO \ Linux

(1) Driver install

Please create a directory under root directory, e.g /temp, do commands:

```
# cd /  
# mkdir temp
```

After get driver file "snx_Vx.x.x.x.zip". Copy file to /temp directory, then extract and install, do commands:

```
# cp snx_Vx.x.x.x.zip /temp  
# cd /temp  
# unzip snx_Vx.x.x.x.zip  
# cd /temp/snx  
# make clean ; make install
```

* If system is Suse 9.0 and errors occur when

* "make clean ; make install", do commands:

*

* # cd /usr/src/linux/

* # make cloneconfig

* # make dep

*

* then do "make clean ; make install" again in /temp/snx

Load driver module, do command:

```
# modprobe snx  
or  
# insmod /temp/snx/driver/snx.ko (snx.o for kernel 2.4)
```

Check driver module, do command:

```
# lsmod | grep snx
```

Unload driver, do command:

```
# rmmod snx
```

(2) Device node creation

Each parallel port has two device node which is name "lp?" and "parport?". This step will backup lp2~lp3 and parport2~parport3 to lp?.bak and parport?.bak in /dev for your system first. Then, create lp2~lp3 and parport2~parport3 in /dev for sunix driver, maximum up to 2 parallel ports.

This setp will be done when do "make clean ; make install", if device nodes aren't in /dev, do commands:

```
# cd /temp/snx/snxmknod  
# ./snxmknod
```

This will create device nodes in /dev.

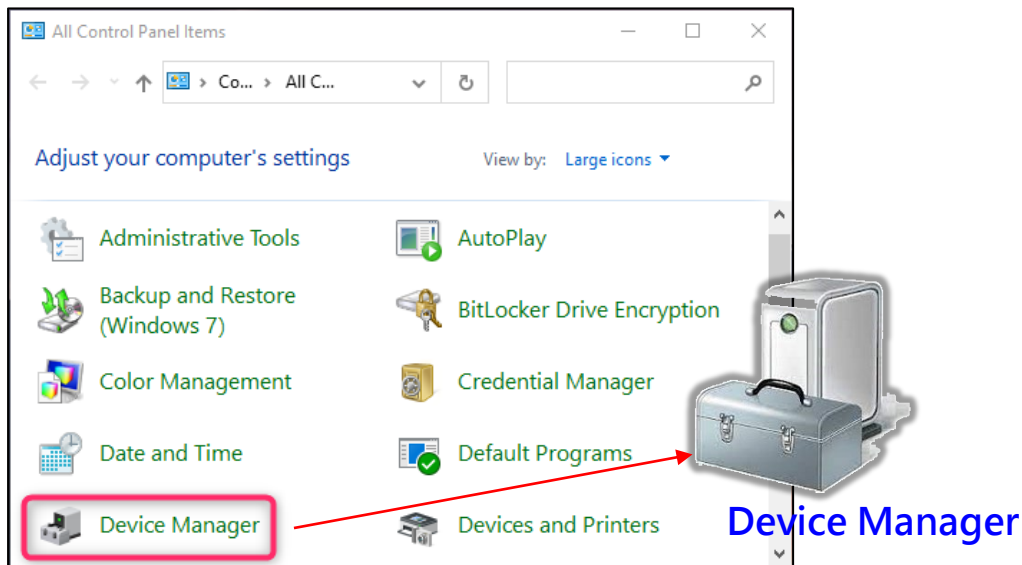
If there are more than two boards installed, LPT port device naming convention please refer to F1.

4. Hardware Verification

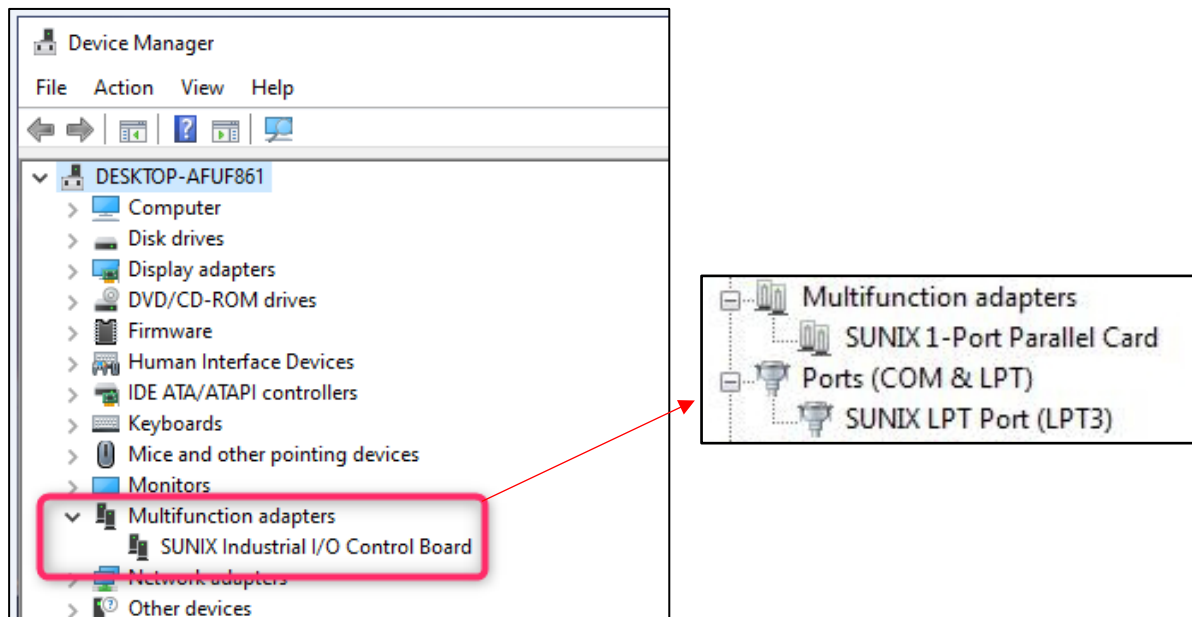
You can use Windows “**Device Manager**” to verify proper installation.

(1) Select Device Manager in the in the Windows Control Panel.

Controller Panel > All Control Panel Items > Device Manager



(2) In the Device Manager window, you would read **SUNIX Parallel Card** under **Multifunction adapters** catalog



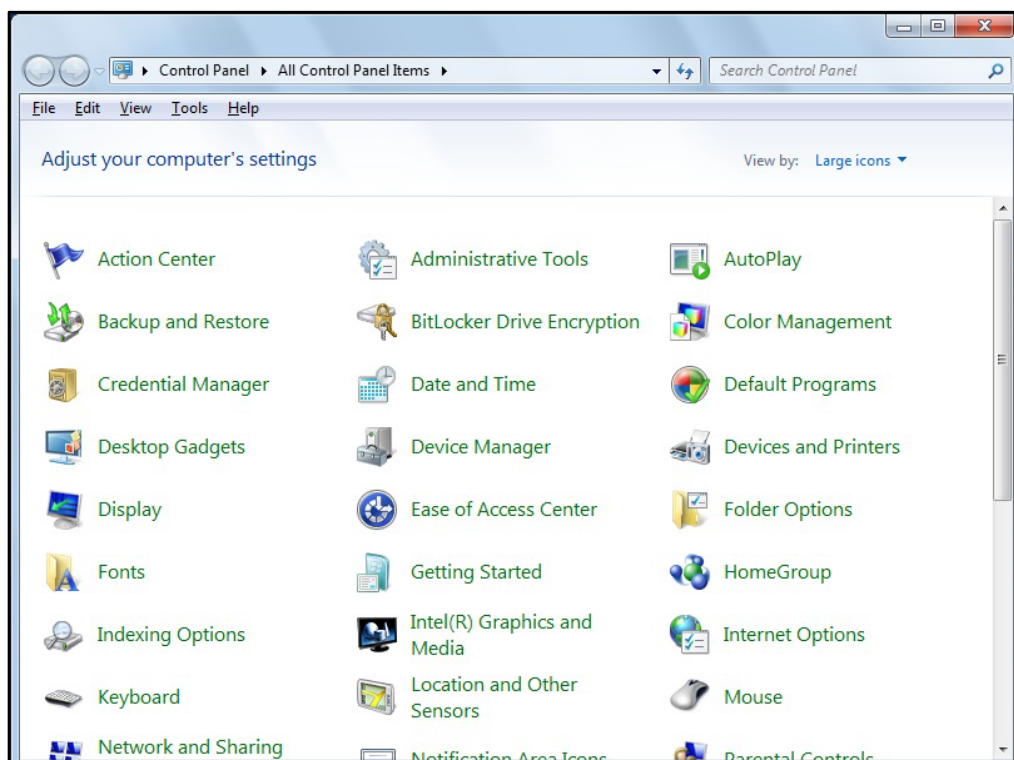
5.Port Configuration

5-1 How to Confirm Parallel Board System Resource

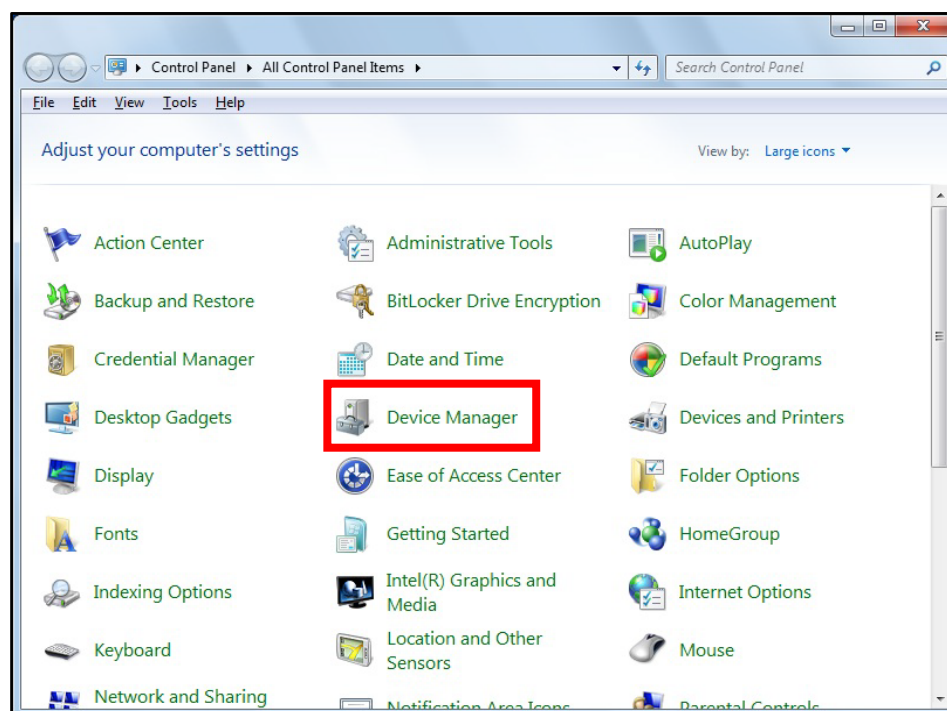
1. Checking System Resource

Click Start → Control Panel

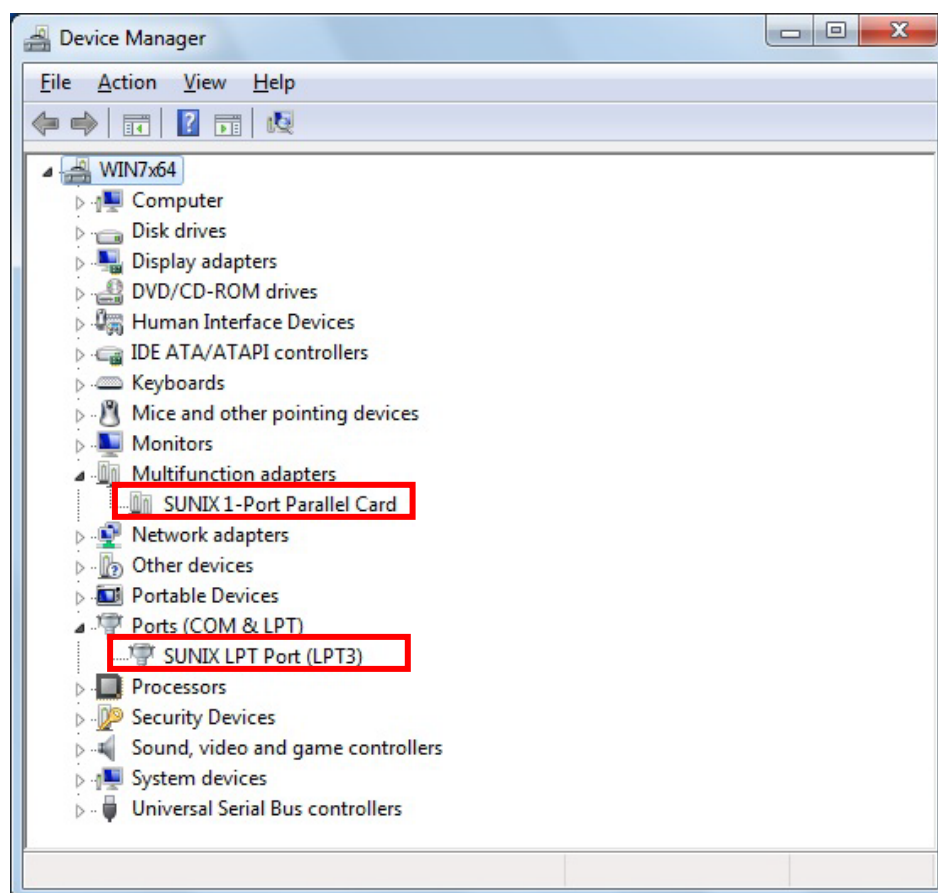
Click View by: Large icons



2. Click the “Device Manager”.



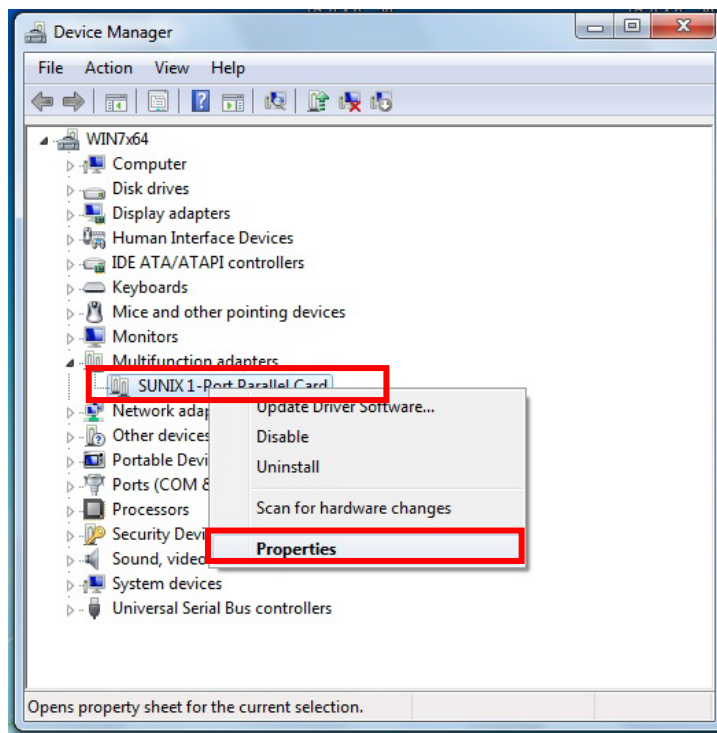
3. Please confirm SUNIX Card already had been installed properly.



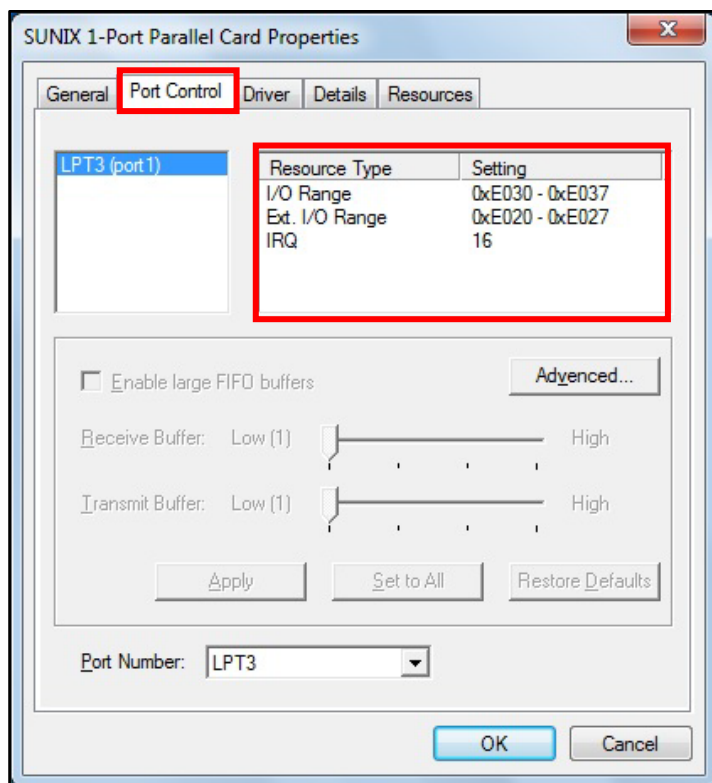
4. In Device Manager

Select the **Multifunction adapter**→ **SUNIX1-Port Parallel Card**

Right Click on your mouse, **Select** “**Properties**”



5. **Select** “**Port Control**” tab page, and you can view IO address and IRQ value.



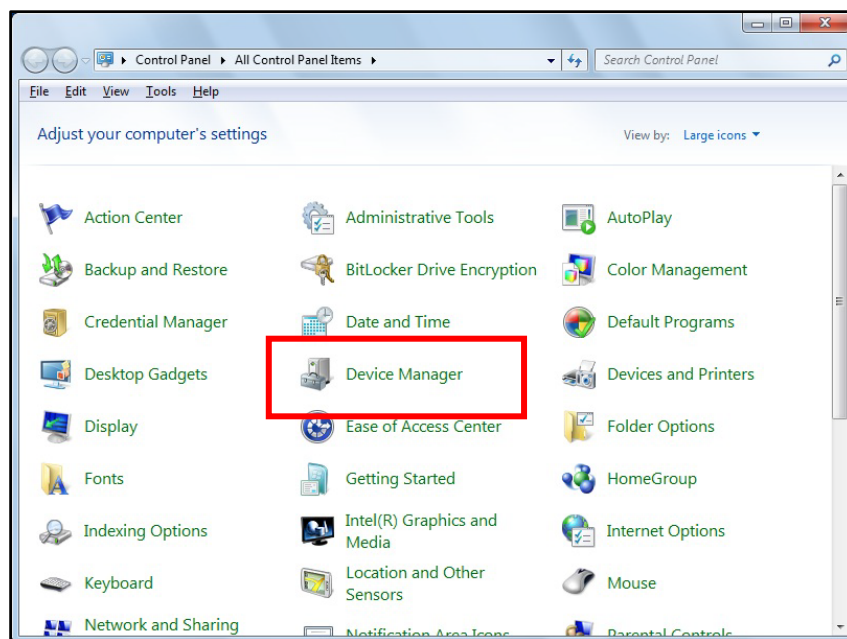
NOTE:

Because of PCI plug-n-play rule and operation system limitation, you can NOT manually remap to 278H and 378H legacy ISA IO address or IRQ value under Win2000, XP, 2003, 2008, 2012, Vista, Win7, Win8, Win10 and Linux OS.

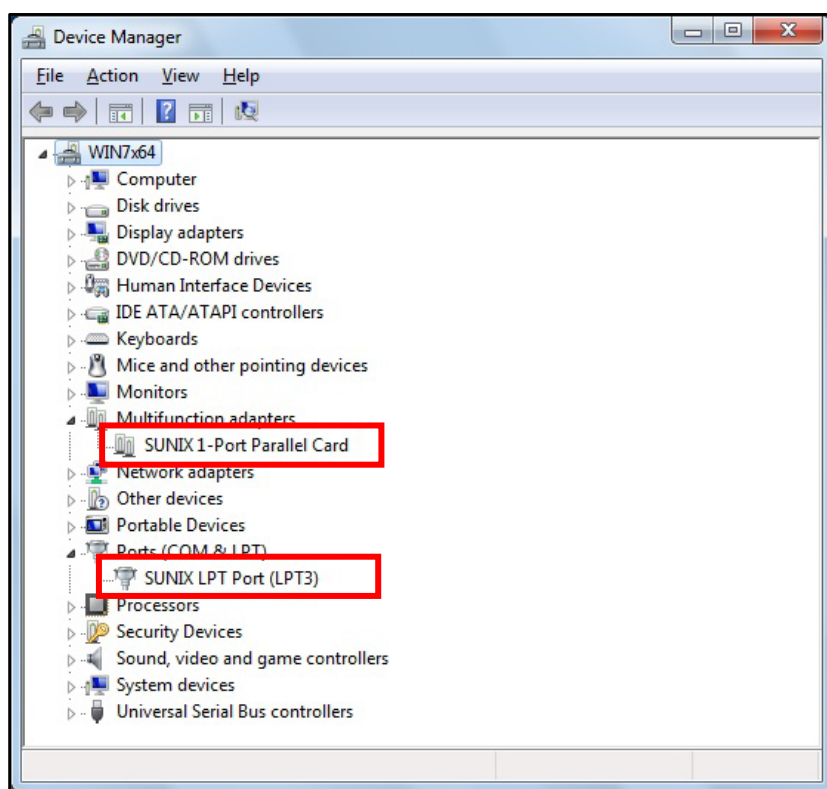
5-2 How to Modify LPT Port Number

1. Checking System Resource

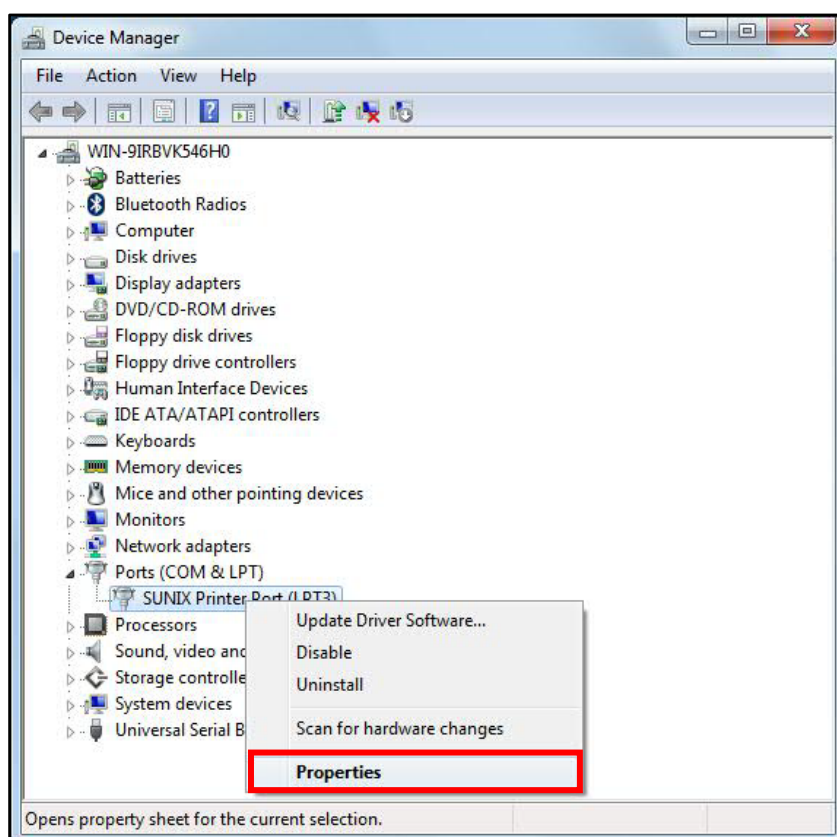
Click **Start** → **Control Panel** → **Device Manager**



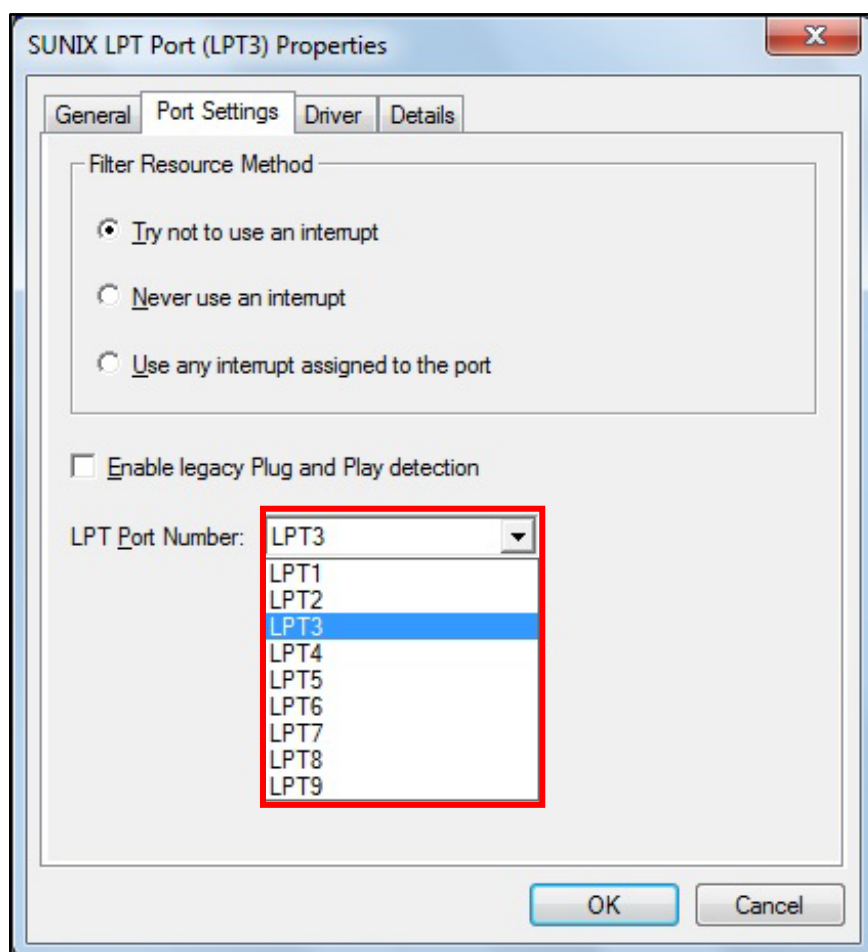
2. Please confirm SUNIX Card already had been installed properly.



3. Right click on your mouse on the LPT port that you want to modify, and
Select **“Properties”**



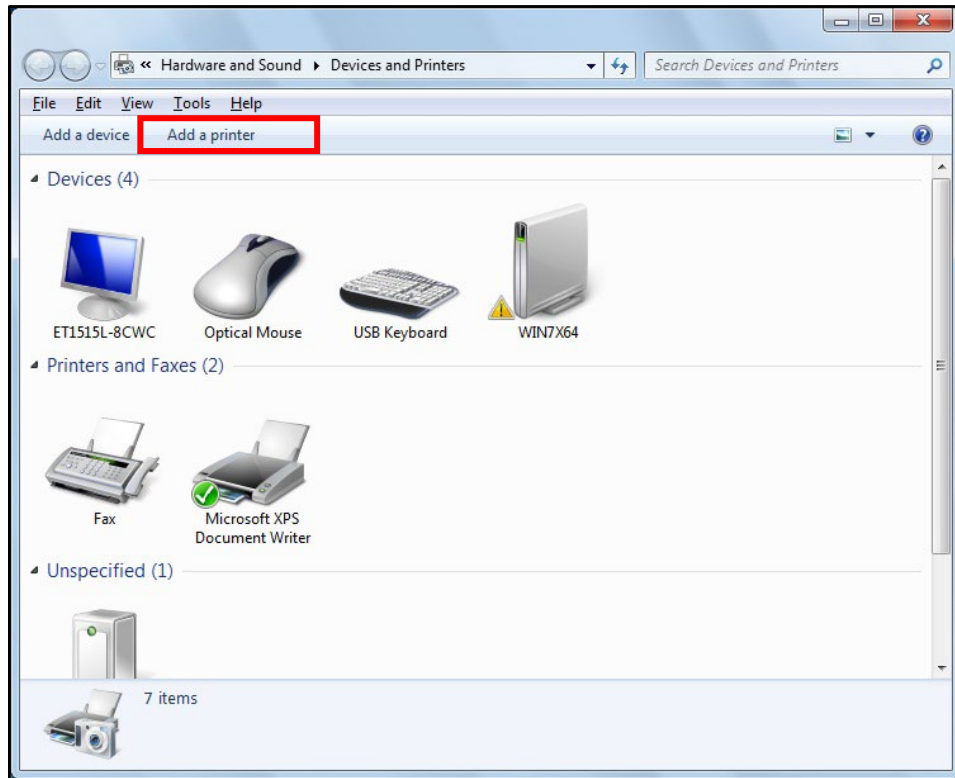
4. Select “Port Settings” tab page, and you can select LPT port number from LPT1 ~ LPT9.

**NOTE:**

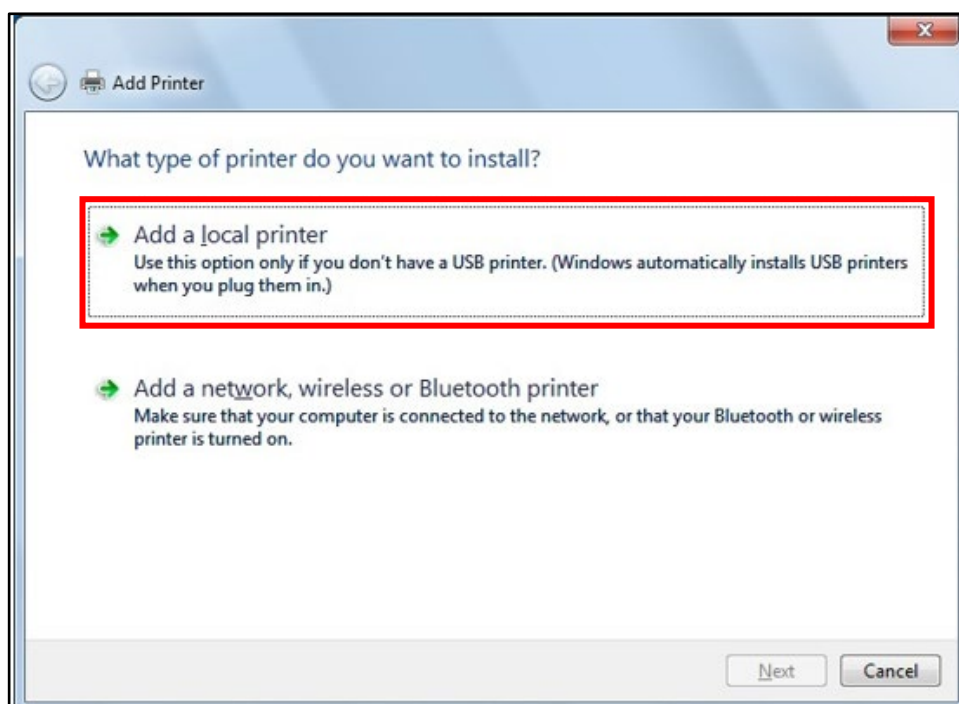
Please do NOT select the “in use” LPT port to prevent system conflict problem.

5-3 How to Install Printer

1. Click Start → Devices and Printers → Add a printer

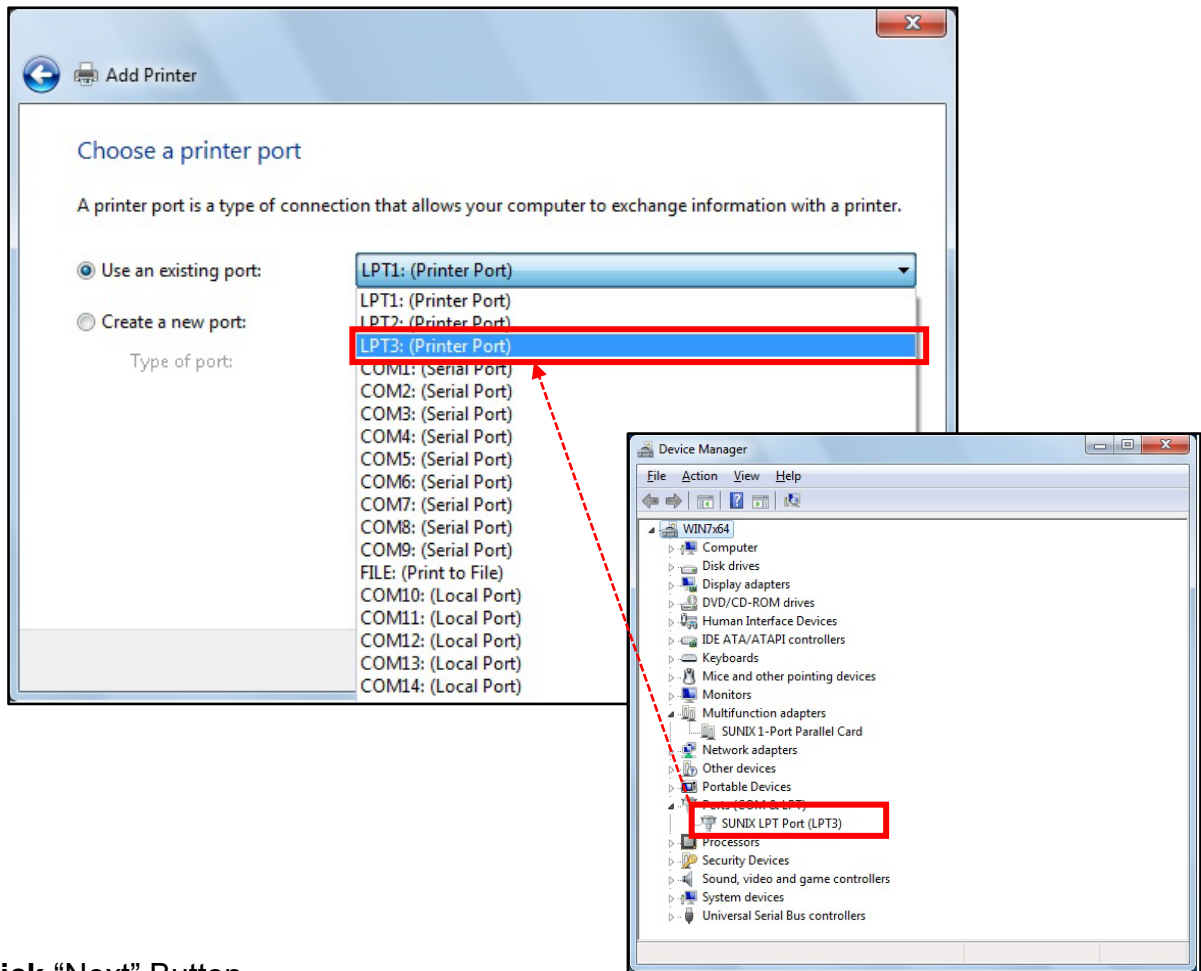


2. Click the “Add a local printer”

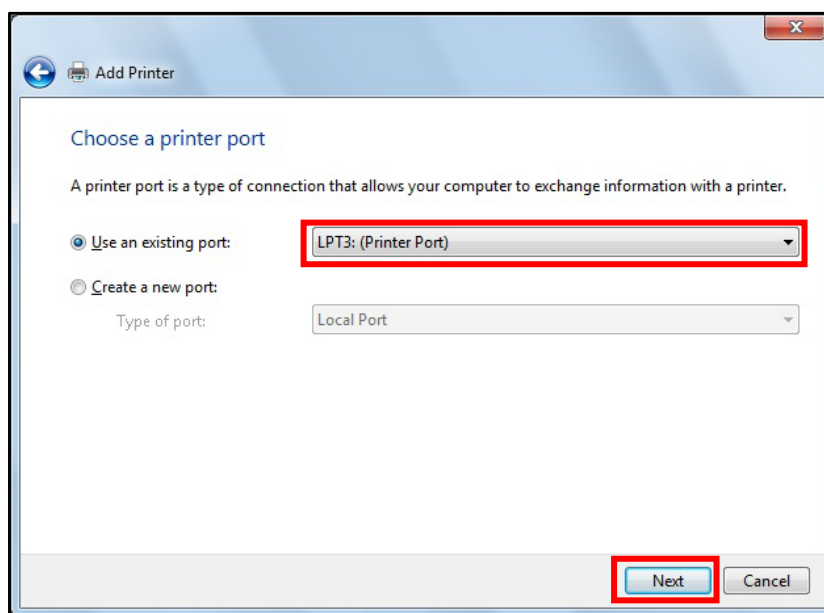


3. **Click “Use an existing port:” and Select LPT3:(Printer Port)**

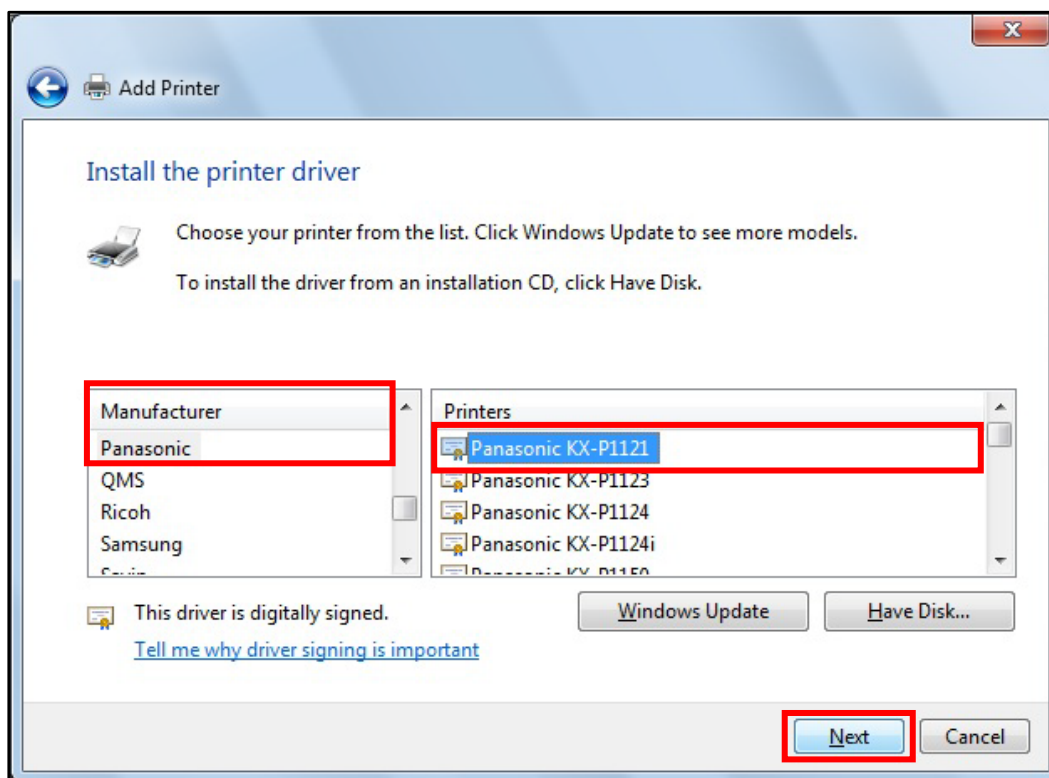
Be sure to set LPT port number matching with Card’s LPT port.



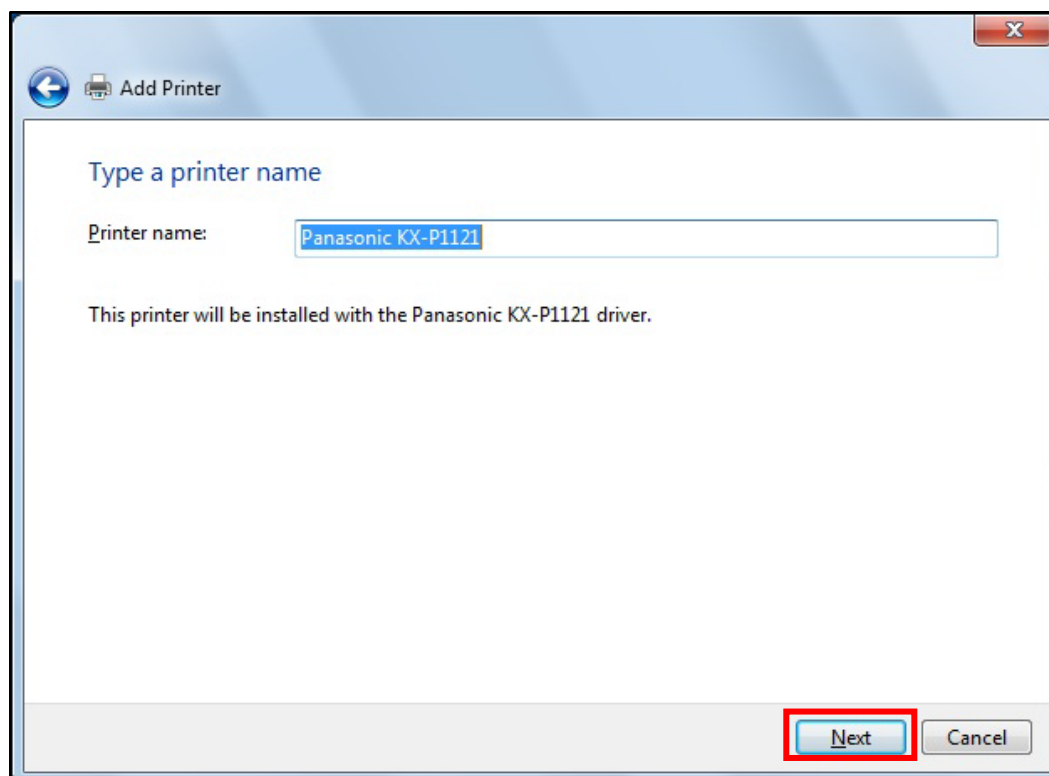
4. **Click “Next” Button**



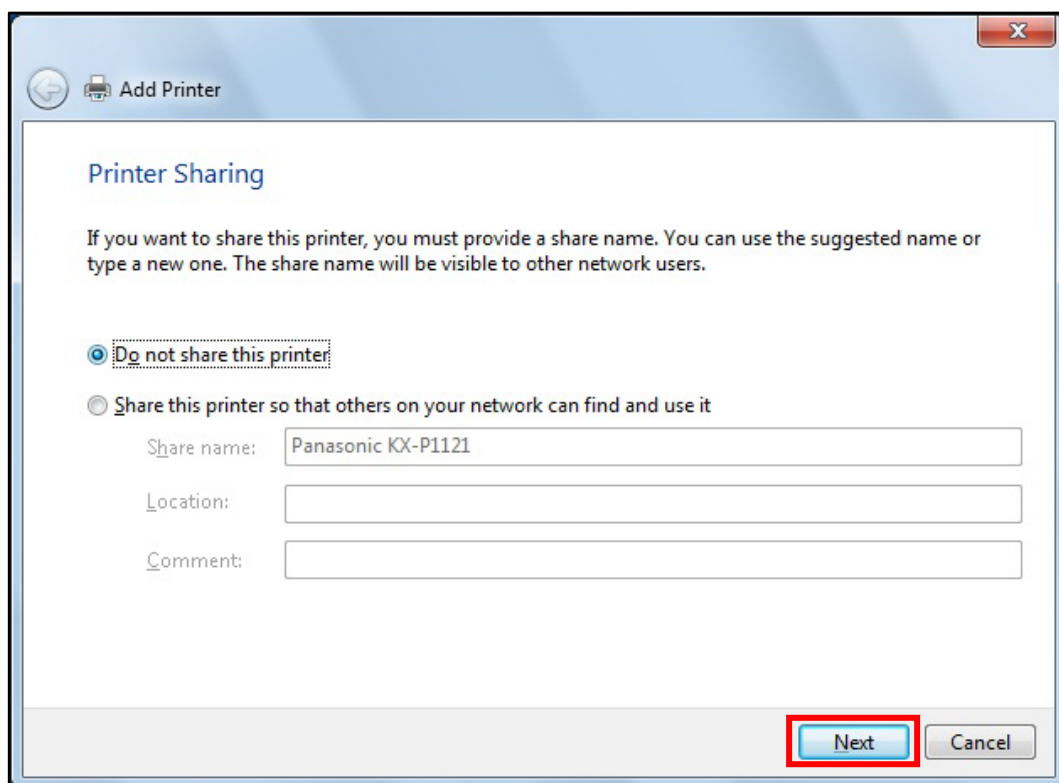
5. **Select** Printer Manufacturer and Printers Model, then **Press** “Next” Button



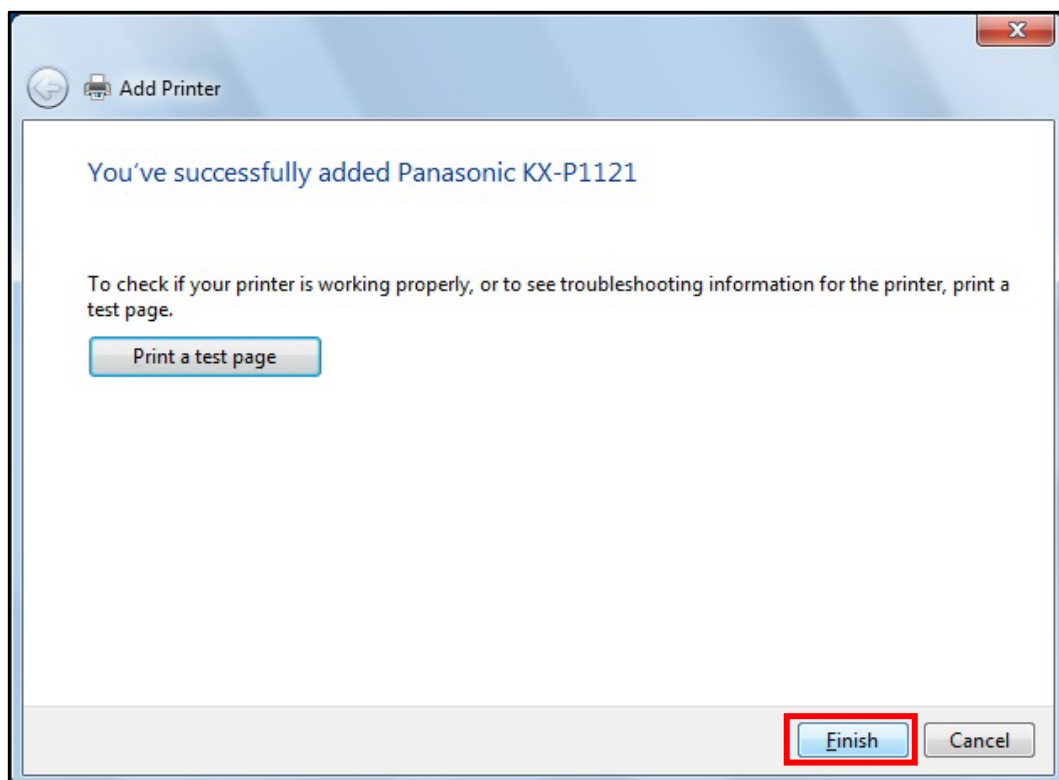
6. **Click** “Next” Button



7. **Select** Share or Do not share This printer then **Click** “Next” Button



8. **Click** “Finish” Button Printer Installation is completed



6. Troubleshooting

1. System fails to find the PCI parallel board or LPT port.

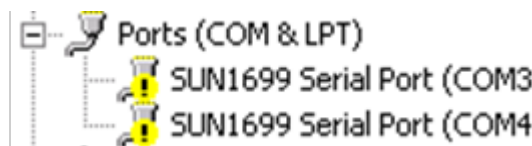
A: It may cause by following issue:

- a. The board is not properly plugged into the PCI slot.
- b. Please clean the golden finger.
- c. The PCI slot is defective. Please try other slots until you find one that works.
- d. The mainboard does not have an available IRQ for the PCI parallel board.
Enter the PC.s BIOS and make sure an IRQ setting is available in the PCI/PnP settings.
- e. The board itself might be defective. You can try another mainboard testing this board working or not.

2. There is a blue screen when I entry operation system.

A: The possible reason is an IRQ or I/O address conflict with other PCI bus adapters, such as LAN or serial boards, or with the system BIOS. Refer to the corresponding problem in the previous FAQ for solutions.

3. There are some exclamation marks on the LPT port and Parallel Card in device manager.



A: It caused by the wrong driver installing. Please uninstall current driver by following driver uninstall chapter, and delete SUNIX parallel card and LPT port in the device manager.

Then please reboot the PC, and re-install the correct or latest driver which can download from SUNIX official website (<http://www.sunix.com.tw/>).

If problem still happens, please contact with us for detail.

4. How can I set the LPT port to the legacy 278 or 378 ISA address?

A: Because of PCI plug-n-play rule and windows operation system limitation, you can NOT remap to 278H or 378H legacy ISA IO address under Microsoft Windows or Linux OS.

5. How come my parallel device cannot work on this Card, but work properly under on-board LPT port??

A: a. Please confirms your parallel device connect to the LPT port correctly.
b. Make sure the LPT port number you connected matches with parallel device settings.
c. Your parallel device only works under 278/378 legacy ISA IO address.
This card can not satisfy with this feature. Please contact with your parallel device vendor for driver updating.

6. How can I set the different ECP / EPP / SPP / BPP operation mode?

A: Under Windows OS such as 2000, XP, 7, 8, and 10, PCI parallel card will automatically communicate with the device to which it is connected and sets to that particular mode. For example, if this card is connected to a printer that support SPP mode, then this parallel card will communicate with this printer and will automatically set to SPP mode. It means that this card will handshake with the device to which it is connected and configures to that mode. User does not require changing to any particular mode. This parallel card's working mode cannot force setting particular mode by driver or BIOS!!