

Universal PCI Parallel Communication Board

Quick Installation Guide

Ver.3

Please visit SUNIX website <http://www.sunix.com> for latest manual and driver update.

Introduction

SUNIX Golden I/O series, a line of Universal PCI Parallel Communication Board, is designed for both 3.3 / 5V and 32 / 64-bit PCI Bus with Plug and Play feature. Its can be installed in virtually any available PC system and compatible with all major operating systems. Users do not need to manually set jumpers to configure I/O addresses and IRQ locations.

This board supports independent parallel LPT port for connecting printers, IC programmers, ZIP Drives, or other Parallel devices.

Package Checklist

Please check if the following items are present and in good condition upon opening your package. Contact your vendor if any item is damaged or missing.

1. Card - Universal PCI Parallel Communication Board x 1
Cable - (Only for 2-port Parallel Board)
13x2 Pin Header to DB25F Flat Cable with Bracket Set x 1
2. Driver CD
3. Quick Installation Guide (This document)

Please go to SUNIX website <http://www.sunix.com> to get latest driver, firmware, user's manual, and product information update.

Features

- High performance SUNIX IEEE1284 parallel controller on-board.
- Ultra low power consumption design for Green Environment.
- Compliance with PCI 33MHz Version 3.0/2.3/2.2/2.1 specification.
- Supports both 64-bit PCI-X & 32-bit PCI bus slot.
- Expand IEEE1284 parallel LPT port on system.
- Support IEEE 1284-1994 parallel port standard
ECP (Enhance Capacity Port) / EPP (Enhance Parallel Port)
SPP (Standard Parallel Port) / BPP (Bi-direction Parallel Port)
- Auto-switching between ECP/EPP/SPP/BPP modes without configuration.
- Plug-n-Play, I/O address and IRQ assigned by system.
- Certified by CE, FCC, RoHS, and Microsoft WHQL approval.
- Support Microsoft Windows, Linux, and DOS.

Note:

- LPT port does not support legacy 278 / 378 ISA address under Windows nor Linux operation systems, but only DOS mode.
- Do not support LPT Key Locker Parallel devices, because of legacy ISA address limitation.

Specification

Parallel Communication

Interface	IEEE-1284
Controller	SUNIX SUN1989
Mode	SPP/ECP/EPP/BPP (Auto-switching)
BUS	Universal PCI 64/32bit PCI Spec.Ver3.0/2.3/2.2/2.1
IRQ & IO	Assigned by System
Data Speed	Maximum 1.8 MB/s
FIFO	16 byte Hardware
Number of Port	1/2-port (Product Dependent)
Board Connector	DB25 Female
Protection	±2KV ESD protection for each signal Human Body Model (HBM)

Driver Support

Windows Client	XP / Vista / 7 / 8.x / 10 (X86/X64)
Windows Server	2003 / 2008 / 2012 / 2016 (X64)
Microsoft Embedded	XP Embedded / POS Ready / Embedded System
Linux	Linux 2.x / 3.x / 4.x
DOS	DOS

Regulatory Approvals

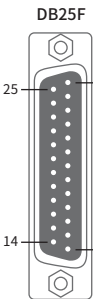
Hardware	EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, FCC Part 15 Class B, RoHS
Software	Microsoft WHQL Windows Microsoft Client: XP / Vista / 7 / 8.x / 10 (X86/X64) Microsoft Server: 2003 / 2008 / 2012 / 2016 (X64)

Environment

Operation Temperature	0 to 60°C (32 to 140°F)
Operation Humidity	5 to 95% RH
Storage Temperature	-20 to 85°C (-4 to 185°F)

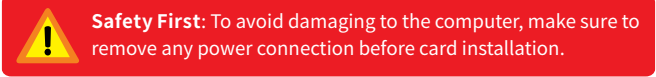
Pin Assignment

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

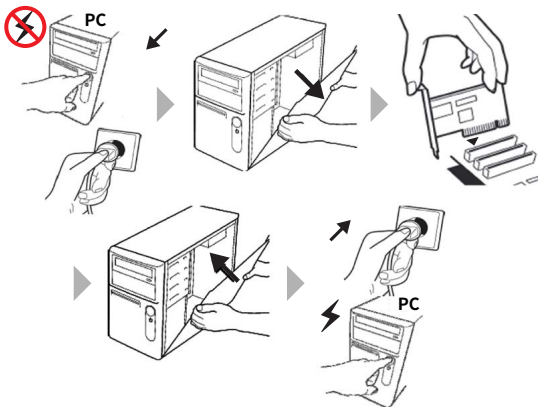


Hardware Installation

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



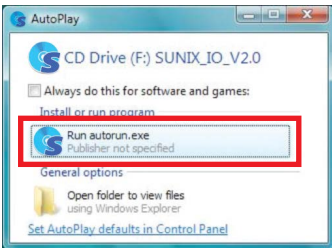
- Step 1:** Turn your PC's power off, and shut off the power to any peripheral.
- Step 2:** Remove the power plug from the plug socket.
- Step 3:** Remove the cover from the computer case.
- Step 4:** If fitted. Remove the metal cover plate on the rear of a free PCI slot.
- Step 5:** Insert Universal PCI Parallel Communication Board into the free PCI 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.



Driver Installation

In order to ensure proper operation of your Universal PCI Parallel board, the driver will be in the CD bound with your product. You can specify the location(folder):

* You can find the detail of the installation steps in the user manual.

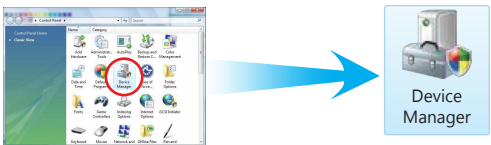


Hardware Verify

Please launch the "Device Manager" to verify hardware installation correctly.

Start > Control Panel > Device Manager

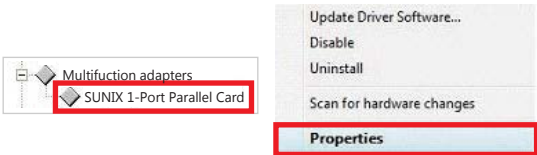
* The number of LPT ports will depend on what products you bought.



Configure Parallel LPT Port Settings

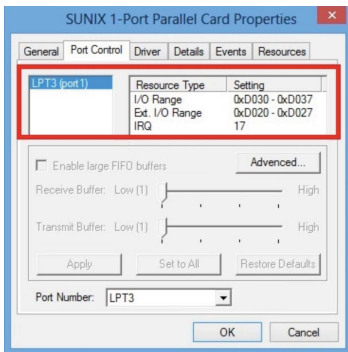
After the board and LPT port drivers are installed, please refer to following instructions to configure LPT port settings.

1. Please launch the "Device Manager".
2. Right click the "SUNIX 1-port Parallel Card" item from the "Multifunction adapters" sub-tree and click "Properties".



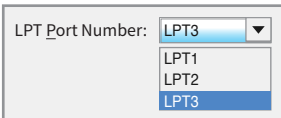
LPT I/O Resource

User can read the LPT "IO Range" and "IRQ" located in system by selecting "Port Control" tab.



LPT Port Number Settings

System default setting is LPT3, if you want to change LPT number to another port, please follow up below steps. Please select "Port Control" tab. Under LPT Port Number, select a LPT number to assign to the port. Click "OK" to approve the settings for the selected port.



NOTE: In order to prevent system resource conflict, do not select "in use" port.

Troubleshooting

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

Ans: It may cause by following issue:

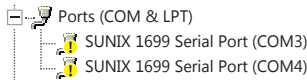
- a. The board is not properly plugged into the PCI slot.
- b. Please clean the golden finger.
- c. The PCI slot is defective. Please try other slots until you find one that works.
- d. The mainboard does not have an available IRQ for this board.
Enter the PC's BIOS and make sure an IRQ setting is available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

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

Ans: It may cause by following issue:

- 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.
- b. Please check driver update from your vendor.

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



Ans: 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.

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

Ans: 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.

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

Ans: It may cause by following issue:

- 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.

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

Ans: 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!

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