

EUT:Sound Card

FCC ID:JDFAUD-GW810

T. N. C. INDUSTRIAL CO., LTD

USER'S MANUAL

## FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection. This equipment generates, uses and can radiated 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 to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## User Manual

### Feature:

- AC'97 Compatible
- IR-bit Stereo Full-duplex Codec with fixed 48 kHz Sampling Rate
- Full DOS Games Compatibility via POFCT, DDM, and CrystalClear Legacy Support™
- 255 MHz's SLIMD™ DSP Architecture(CS4614A)
- DirectX™ 5.0 3D Positional Audio
- Hardware Aural A3D Acceleration(CS4614A)
- East Labs Approved 64 Voice Wavetable Synthesis with Effects(CS4614A)
- NetMeeting™ AEC (Acoustic Echo Cancellation) Hardware Acceleration(CS4614A)
- High Quality Hardware Sample Rate Conversion (90-dB Dynamic Range)
- PCI Version 2.1 Bus Master
- PCI Power Management (D0 through D3 Hot), AMP 1.2, and ACPI 1.0 Support
- Four Analog Line-level Stereo Inputs for Connection From LINE IN, CD, VIDEO And AUX.

### System Requirements

- IBM PC compatible system with plug-and-play BIOS or without plug-and-play BIOS
- OS with MS Windows 95, Windows 98.
- 4 MB of free hard disk space for Sound Card Software
- VGA or Super VGA
- Crystal Sound Card

### Installing the Sound Card

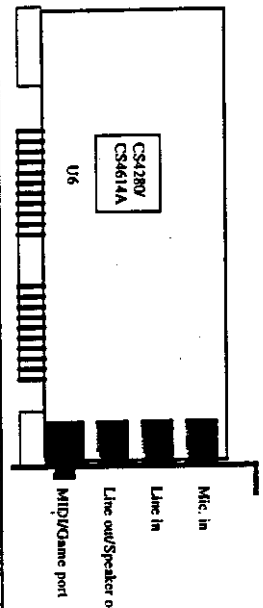
#### Installing the Sound Card Into the PC System

Before you start, make sure that Windows 95, Windows 98, Windows NT4.0/4.0 or OS2 has been installed in your system and is running properly. Please follow the following steps carefully when installing your Sound card.

1. Turn off your computer and disconnect all power cords.
2. Remove the cover from your computer. Refer to your PC's user manual for more details.
3. Plug the Sound Card into any free 32-bit PCI slot of the computer.
4. Connect the ribbon cable to your CD-ROM drive sound source.
5. Put the computer cover back on and reconnect the power cords.

### Connecting Audio Devices

You can connect various types of audio equipment, such as speakers, headphones, CD Players, Tape decks, and so on, to the Sound Card through its back panel jacks. The following diagrams show the connectors on the back panel.



Line in:	This phone jack can be connected to the Line-out connector of any home stereo receiver, radio, CD player, synthesizer, etc.
Mic. In:	Microphone input.
Line out/Speaker out:	This connector provides stereo 0.75W per-channel output level, for a 8 Ω speaker. Or line out signal level without power amplifier.
MIDI/Game Port:	The 15-pin female connector can be connected to any IBM PC compatible joystick with a 15-pin D-shell connector.
CD Audio:	There are two sets of pins, one for Mitsumi and the other one for Sony.

\*A MIDI adapter is required to connect a MIDI instrument to the Sound Card. The MIDI adapter can be purchased from your local computer store and is connected to the MIDI/Game port.

**Installing the Sound Card Software with Windows 95**  
**FIRST TIME INSTALLATION FOR WINDOWS 95 WITH PLUG AND PLAY BIOS SYSTEM:**

1. Power up your computer and wait for Windows 95 to boot up.
2. Once Windows 95 is up and running, a New Hardware Found message box will appear and announce the detection of CRYSTAL plug and play Audio Driver. Select Driver from CD disk provided by hardware manufacturer, then Click next.

If you want plug-and-play functionality, you must have a plug-and-play BIOS equipped motherboard, a plug-and-play Operating system like windows 95, and plug-and-play add-on card like our sound Cards.

In update device driver wizard dialog box, Installation 95 Update Device Driver Wizard

3. First Time For PCI Multimedia Audio Device Selected \* Next \*
  4. Second Time For Other Locations To Selected Other Locations Icon, Then Went To Browse Icon --> Open Browse For Folder Windows To Selected CD-ROM Sound Drivers Location (980831\_1701) --> 4280 Driver ( Or 4614A Driver ) --> OK. Back To Select Other Location Window --> OK
  5. Third Time For Crystal Soundfusion(TM) PCI Audio Acceleration --> Insert Disk --> OK. Show Up \* Copying Files \* Selected To Browse --> Show Up Open ( Drivers Location ) --> OK --> Back To Copying Files --> OK. Click RESTART.
  6. Click RESTART.
- FIRST TIME INSTALLATION FOR WINDOWS 95 W/O PLUG AND PLAY BIOS SYSTEM:**
1. Power up your computer and wait for Windows 95 to boot up.
  2. Open my computer.
  3. Select sound card CD driver location.
  4. Click CD driver.
  5. Click drivers
  6. Click 4280drv\4614drv
  7. Click SETUP
  8. Show up crystal audio driver installation then click NEXT
  9. Show up setup is complete. Click RESTART.

**Installing the Sound Card Software with Windows 98**

\*Add New Hardware Wizard\* Windows  
 This wizard searches for new drive For crystal Sound Fusion (tm) PCI Accelerator to selected "next"  
 Then what do you want windows to do?  
 To selected "next" --> specify a location  
 E:\4280DRV --> press "next" you can see E:\4280DRVCWCAUDIO\INF (option location of Driver) --> next --> Finished  
 Restart machine  
 Note: Windows joystick may be require windows95\98 of system files.

**Troubleshooting**  
**A. PROBLEMS:**

- There is no sound output after the Sound Card is installed.  
**SOLUTION:**
1. Check the speakers if they are connected properly to the Speaker Out phone jack on the Sound Card.
  2. Volume is not turned on. Make sure that the volume is turned on under the MIXER Icon in Windows.

3. There might be a conflict between the Sound Card and other add-on cards in your computer. This is usually caused by some Plug and Play legacy devices. Windows95 cannot detect these add-on cards; therefore, it cannot resolve IRQ, DMA, and IO Port Address conflicts automatically. Go into system configuration and check CRYSTAL Plug and Play Audio Drive to make sure that there is no conflicts. Manual adjustments can be made by going into the Resources of the CRYSTAL Plug and Play Audio Drive dialog box.

