Multi I/O Card

User's Manual

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Introduction

The Multi I/O Card series has 8 models.

- 1 220N-1: One Serial Port
- 2 220N-2: Two Serial Ports
- (3) 221N-2: One Serial & One Parallel Port
- (4) 222N-2: Two Serial & One Parallel Port
- (5) 223NP-4: Four Serial & One Parallel Port
- 6 L220N-1: Low Profile One Parallel Port
- (7) L220N-2: Low Profile Two Parallel Port

Features

- Chipset: MosChip
- Single 5-V Operation
- Low Power
- PCI compatible Dual UART
- 16-byte transmit-receive FIFO (UART)
- Status report capability
- Compatible with 16C550
- Multi-mode compatible controller (SPP, PS2, EPP, ECP)
- Fast data rate up to 1.5 Mbytes/s (parallel port)
- Fast data rate up lo I Mbytes/s (serial ports)

System Requirements

- An available PCI slot
- IBM or compatible systems with a 586 or faster processor (Pentium processor recommended)
- 128 MB System RAM
- Operating System Support : Windows 98SE / ME / 2000 / XP / NT / 2003 / VISTA

Package contents

Following items are included in the packaging box:

- PCI Card x1
- User's Manual x1
- Software Driver in CD or Disk x1
- I/O Cable (optional) x1

Hardware Installation

- Unplug all power cords and cables that may interfere with the back of the computer.
- Remove your computer's cover by removing its mounting screws with a screwdriver. Slide the cover OFF.
- Locate an unused PCI slot and insert the PCI Card into it. Ensure that it is well inserted.
- Replace the cover slot holding screw to secure the board in place.
- Replace the computer's cover and screws. Then reconnect all power cords and cables to the back of the computer.

The hardware installation is completed.

Software Installation We use ^[] 222N-2 Board ^[] to demonstrate for driver installation.

Windows 98SE

1. Click button to continue installation.

| Add New Hardware Wizard | |
|-------------------------|---|
| | This wizard searches for new drivers for: |
| | PCI Serial Controller |
| | A device driver is a software program that makes a hardware device work. |
| 😤 📚 | |
| | |
| | |
| | < Back Next > Cancel |

2. Select ^CSearch for the ... and click button to continue installation.

| Add New Hardware Wiz | zard |
|----------------------|--|
| | What do you want Windows to do? |
| | Search for the best driver for your device. (Recommended). |
| | Display a list of all the drivers in a specific location, so you can select the driver you want. |
| ی 😵 | |
| | |
| | |
| | < Back Next > Cancel |

3. Browse to $\[X:\MultiIO\222N-2\Driver\Win98\]$ and click button to

continue installation.

| Add New Hardware Wizard | |
|------------------------------|--|
| | Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search. |
| < <u>B</u> ack Next > Cancel | |

Note- X: represents the CD-ROM driver

<u>N</u>ext >

| 4. Click | button to continue installation. |
|----------------------|--|
| Add New Hardware Wiz | zard |
| | Windows driver file search for the device: |
| | NetMos PCI 9835 Multi-I/O Controller |
| | Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue. |
| 🕉 🍣 – | Location of driver: |
| | D:\MULTIIO\222N-2\WIN98\NMMFENUM.IN |
| | |
| | < Back Next > Cancel |

5. Click Finish button to finish installation.

| Add New Hardware Wizard | |
|-------------------------|--|
| | NetMos PCI 9835 Multi-I/O Controller |
| | Windows has finished installing the software that your new hardware device requires. |
| | |
| ~ | |
| | < Back Finish Cancel |

 After your computer restarts, click 『Start → Control Panel 1 then select System 1, click on the Device Manager 1 tab and see if the hardware was installed properly.

| System Properties | <u> </u> |
|---|----------|
| General Device Manager Hardware Profiles Performance | |
| • View devices by type • View devices by <u>c</u> onnection | |
| Floppy disk controllers Hard disk controllers Keyboard Monitors Mauree | |
| NetMosMultiFunction NetMos PCI 9835 Multi-I/O Controller Forts (COM & LFT) Communications Port (COM1) | |
| Communications Port (COM2) FCP Printer Port (LPT1) VetMos PCI Parallel Port (LPT2) | |
| NetMos PCI Serial Port (COM3) NetMos PCI Serial Port (COM4) | |
| | |
| Properties Refresh Remove Print | |
| OK Cance | |

Windows ME

Select
 Specify the location ... and click
 Next>
 button to continue
 installation.

| Add New Hardware Wizard | |
|-------------------------|--|
| | Windows has found the following new hardware: PCI Serial Controller Windows can automatically search for and install software that supports your hardware. If your hardware came with installation media, insert it now and click Next. What would you like to do? Automatic search for a better driver (Recommended) Specify the location of the driver (Advanced) |
| | < Back Cancel |

2. Browse to ^TX:\MultiIO\222N-2\Driver\WinME and click button to

continue installation.

| Add New Hardware Wizard | |
|-------------------------|---|
| | Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected Search for the best driver for your device. (Recommended). Removable Media (Floppy, CD-ROM) ✓ Specify a Jocation: X:\MultilO\222N-2\WINME Browse Display a list of all the drivers in a specific location, so you can select the driver you want. |
| | < <u>B</u> ack Next> Cancel |

Note- X: represents the CD-ROM driver

3. Click Next> button to continue installation.



4. Click Finish button to continue installation.



5. Click <u>Yes</u> button to finish installation and restart the PC.

| System Settings Change | |
|------------------------|--|
| ? | To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer now? |
| | Yes <u>N</u> o |

 After your computer restarts, click 『Start → Control Panel 1 then select System 1, click on the Device Manager 1 tab and see if the hardware was installed properly.

| System Properties | ? × |
|--|-------|
| General Device Manager Hardware Profiles Performance | |
| • View devices by type • • • • • • • • • • • • • • • • • • • | |
| ➡··· ➡ Floppy disk controllers ➡·· ➡ Hard disk controllers ➡·· ➡ Keyboard ➡·· ➡ Monitors ➡·· ➡ Mouse | |
| SetMosMultiFunction J NetMos PCI 9835 Multi-I/O Controller J Pote (SSM & LPT) | |
| Communications Port (COM1) | |
| VetMos PCI Parallel Port (LPT2) VetMos PCI Serial Port (COM3) VetMos PCI Serial Port (COM4) | |
| ⊕ | - |
| Properties Refresh Remove Print | |
| OK Ca | ancel |

Windows 2000

1. Click Next> button to continue installation.

 $\mathsf{Next} \succ$

2. Select ^C Search for a ... ^{and} click

button to continue installation.

| Found New Hardware Wizard | |
|---|--|
| Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system. | |
| This wizard will complete the installation for this device: | |
| PCI Serial Port | |
| A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next. | |
| What do you want the wizard to do? | |
| Search for a suitable driver for my device (recommended) | |
| Display a list of the known drivers for this device so that I can choose a specific driver | |
| < Back Next > Cancel | |

3. Select $\[\]$ Specify a location $\[\]$ and click

button to continue installation.

| Found New Hardware Wizard | | |
|---|--|--|
| Locate Driver Files Where do you want Windows to search for driver files? | | |
| Search for driver files for the following hardware device: | | |
| PCI Serial Port | | |
| The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify. | | |
| To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next. | | |
| Optional search locations: | | |
| Eloppy disk drives | | |
| | | |
| Specify a location | | |
| Microsoft Windows Update | | |
| | | |
| < Back Next > Cancel | | |

Next >

4. Browse to ^TX:\MultiIO\222N-2\Driver\Win2000 and click

button

ΟK

to continue installation.



Note- X: represents the CD-ROM driver

| 5. C | lick | Next > | button to | continue | installation. |
|------|------|--------|-----------|----------|---------------|
|------|------|--------|-----------|----------|---------------|

.

| Found New Hardware Wizard |
|---|
| Driver Files Search Results The wizard has finished searching for driver files for your hardware device. |
| The wizard found a driver for the following device: |
| PCI Serial Port |
| Windows found a driver for this device. To install the driver Windows found, click Next. |
| d:\multiio\222n-2\win2000\nm2kmf.inf |
| |
| |
| < Back Next > Cancel |

6. Click Finish button to continue installation.

| Found New Hardware Wizard | | |
|---------------------------|---|--|
| | Completing the Found New Hardware WizardImage: MetMos 9835 PCI Multi-I/O ControllerImage: MetMos 98 | |
| | To close this wizard, click Finish. | |
| | < Back Finish Cancel | |

After your computer restarts, click 『Start → Settings → Control Panel then select System, click on the Device Manager tab and see if the hardware was installed properly.

| Computer Management |
|---|
| <u>A</u> ction <u>Vi</u> ew ← → 🔁 🖬 😤 🔜 |
| E TEST-GDD2JKKJ5E |
| 🔁 📃 Computer |
| 🕀 💷 Disk drives |
| 😟 🖳 🖳 Display adapters |
| DVD/CD-ROM drives |
| 🕀 🚭 Floppy disk controllers |
| Eleppy disk drives A second sec |
| IDE ATA/ATAPI controllers |
| E with the second seco |
| Here's Mice and other pointing devices |
| 🗄 🦳 Multifunction adapteers |
| NetMos 9835 DCI Multi-I/O Coptroller |
| Parts (COM & LPT) |
| Communications Port (COM1) |
| Communications Port (COM2) |
| ECP Printer Port (IPT1) |
| - 🦅 NetMos PCI ECP Parallel Port (LPT2) |
| - 📝 NetMos PCI Serial Port (COM3) |
| NetMos PCI Serial Port (COM4) |
| 🛓 🕀 Sound, video and game continellars |
| 🗄 🚊 System devices |
| 🗄 🕰 Universal Serial Bus controllers |
| |

Windows XP

| 1. Select ^C Install fro | om a \dots and click Next > button to conti | nue installation. |
|------------------------------------|--|-------------------|
| Found New Hardware Wiz | ard and a second se | |
| | Welcome to the Found New Hardware Wizard | |
| | This wizard helps you install software for: PCI Serial Port | |
| | If your hardware came with an installation CD or floppy disk, insert it now. | |
| | What do you want the wizard to do? | |
| | Click Next to continue. | |
| | < Back Next > Cancel | |

2. Browse to ^TX:\MultiIO\222N-2\Driver\WinXP _ and click ______ button to

continue installation.



Note- X: represents the CD-ROM driver

3. Click Continue Anyway button to continue installation.

| Hardwa | re Installation |
|--------|---|
| 1 | The software you are installing for this hardware: NetMos 9835 PCI Multi-I/O Controller has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing. |
| | Continue Anyway STOP Installation |

4. Click Finish button to continue installation.



Select
[¬]Install the software ... and click
^{Next >} button to continue installation.



6. Click Continue Anyway

button to continue installation.



7. Click Finish button to continue installation.



8. Select ^C Install the software ... and Click Next > button to continue

installation.



9. Click Continue Anyway button to continue installation.

| Hardwa | re Installation |
|--------|---|
| 1 | The software you are installing for this hardware: NetMos PCI Serial Port has not passed Windows Logo testing to verify its compatibility with Windows XP. (<u>Tell me why this testing is important.</u>) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing. |
| | Continue Anyway STOP Installation |

10. Click Finish button to continue installation.



- 11. Repeat step from 8 to 10 to install serial port again.
- Click 『Start → Control Panel then select 『System → Hardware , check device information on Device Manager .



Windows Vista

- 1. Select ^C Locate and install driver software (recommended) 1 to start the installation.
- 3. Select the option $\[\]$ Browse my computer for driver software (advanced) $\]$.
- 4. Select the location of the driver disk by using the option $\[\]$ Browse $\[\]$ and click on $\[\]$ Next $\[\]$.
- 5. ^[] Install this driver software anyway ^[] " to proceed with driver installation.
- 6. Click on $\[\] Close \]$ to complete the driver installation.
- 7. The Serial / Parallel ports of PCI Card will automatically get detected by the OS without user intervention.

Driver Installation in Windows Vista 64-bit:

The 64-bit version of Windows Vista is the first version of Windows that will only allow signed drivers and this restriction is built-in. Currently, MCS98XX drivers are unsigned. Till we get signed drivers, we request you to follow some prerequisites before installing the driver.

Preparing Vista 64-bit for Driver installation:

- Using the F8 option: Press F8 key on your keyboard while booting your PC. You will get into "Advanced Boot Options". Select "Disable Driver Signature Enforcement".
- An F8 Advanced Boot Option introduced with Windows Vista—"Disable Driver Signature Enforcement"—is available to disable the kernel-signing enforcement only for the current boot session. This setting does not persist across boot sessions. Note: Make sure to use F8 option every time you boot/reboot your PC before start working with PCI Card
- Make sure that the User installing the driver must be a member of the Administrator group on the system.
- You will get a "User Account Control" window saying "An unidentified program wants access to your computer". Click on Allow to continue installing the Driver.

Windows NT4

1. Select $\[\]$ NetMosWinNTMultiIODrivers.EXE $\]$ file from

 X:\MultiIO\222N-2\Driver \WinNT directory and click
 Next >
 b

button to

continue installation.



Note- X: represents the CD-ROM driver

2. Click button to continue installation.



3. Select ^[] Yes, I want to ... ^[] and click

button to finish installation.



Finish

4. Open [©] Control Panel [°] from [©] My Computer [°] and click [©] NetMos Multi-I/O Ports [°]

| 📎 NetMos Multi I/O Port Settings | ? × |
|--|------|
| Serial Ports Parallel Ports About | |
| PCI_Nm9835-2S1P_on_Slot0c : Port1 | |
| Ports Port Settings I/0-Base: 9000 | |
| IRQ: 11 | |
| - Properties | |
| FIFO Enabled Receive Buffer Size Not 100750 Compatible | |
| | |
| □ <u>S</u> leep mode 1 16 | |
| | |
| OK Car | icel |

5. Open ^C Control Panel ^{from My} Computer ^{and} click ^{NetMos} Multi-I/O Ports ^J

| 📏 NetMos Multi I/O Po | rt Settings 🛛 ? 🗙 |
|-----------------------|------------------------------|
| Serial Ports Para | llel Ports About |
| PCI Nn | n9835-2S1P on Slot0c : Port3 |
| Ports | Port Settings |
| | 1/0-Base: 9800 |
| | IRQ: 11 |
| - Parallel Port Mode | |
| ⊙ <u>D</u> efault | O <u>P</u> PF Mode |
| ◯ <u>S</u> PP mode | C E <u>C</u> P mode |
| ○ <u>B</u> PP mode | O EPP mode |
| | |
| | |
| | OK Cancel |

Warranty Information



This device is in conformance with Part 15 of the FCC Rules and Regulations for InformationTechnologyEquipment.Operationofthisproductissubjecttothefollowing twoconditions:(1)Thisdevicemaynotcauseharmfulinterference,and(2)Thisdevice acceptanyinterferencereceived,includinginterferencethatmaycauseundesiredoperation.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B Computing Device, pursuant to Part 15 of the FCCR ules. The selimits are designed to provide reasonable protection agains tharm fulinter ference when the equipment is operated in a residential Installation. This equipment generates, uses, and can radiater adiof requency energy and If not installed and use dinaccordance to the instructions, may cause harm ful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harm ful interference to radio and television reception, which can be determined by turning the equipment of fandon, the user is encouraged trying to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase these paration between the equipment and the antenna.
- Connecttheequipmentintoanoutletonacircuitdifferentfromthattowhichthereceiver isconnected.
- · Consult the dealeror an experience radio or TV technician for help.

IMPORTANT

Any changesormodifications not expresslyapproved by the party responsible for the compliance could void the user's authority tooperate this equipment. This product requires the use of shielded cables in order to comply with FCC requirements.

22XN-X_L22XN-X_22XP-X Rev 1.2