

# MOXA<sup>®</sup>

## CP-204J Intelligent Serial Board

### Quick Installation Guide

Third Edition, September 2010

#### 1. Overview

CP-204J is a 4-port RS-232 PCI serial board that is ideal for connecting a wide range of serial devices—including terminals, modems, printers, scanners, cash registers, bar code readers, keypads, numeric displays, electronic scales, and data acquisition equipment—to a PC. The state-of-the-art ASIC design, on-board RISC processor (TI TMS320), and large I/O buffer (512 KB), make it possible for CP-204J to use minimal system resources, and allow data transmission at speeds of up to 921.6 Kbps. This makes CP-204J suitable for applications that involve fast response transactions, as well as applications that must provide reliable 24-hour service.

CP-204J is a Moxa Green Product. Moxa's Green Products satisfy the RoHS directive of the European Parliament, and accordingly, do not contain cadmium and cadmium compounds, hexavalent chromium compounds, lead and lead compounds, mercury and mercury compounds, PBBs (polybrominated biphenyls), or PBDEs (polybrominated diphenyl ethers).

#### 2. Package Checklist

Before installing the CP-204J board, verify that the package contains the following items:

- 1 CP-204J 4-port serial board
- Documentation and Software CD
- Quick Installation Guide

Notify your sales representative if any of the above items is missing or damaged.

#### 3. Hardware Installation Procedure

The CP-204J board MUST be installed in the PC before installing the driver. The following directions explain how to install the board in the PC.

- STEP 1:** Power off the PC.
- STEP 2:** Insert the CP-204J control board firmly into a free PCI slot.
- STEP 3:** Fasten the holding screw to fix the control board in place.
- STEP 4:** Connect one of the connection boxes or connection cables to CP-204J, and connect an adapter of required.
- STEP 5:** Power on the PC; the BIOS will automatically set the IRQ and memory bank.\

**P/N: 1802002041022**

#### 4. Software Installation Information

The board MUST be plugged in before installing the driver software. See the previous section for instructions on how to install the board in your PC. Refer to the CP-204J User's Manual for detailed instructions on installing the drivers for this board.

##### Windows 2003/XP Driver Installation

1. After powering on your PC, Windows 2003/XP will automatically detect the CP-204J board.
2. Insert the CP-204J software CD in your CD-ROM drive.
3. Select **Install from a list or specific location (Advanced)**.
4. After selecting **Search for the best driver in these locations**, check the **Include this location in the search** checkbox, and then use the browse button to navigate to the CD's **CP-204J\Software\Win2K-XP-2003** folder.
5. Click **Continue Anyway** in response to any admonitions that the software hasn't passed Windows Logo testing.
6. After the board has been installed, the installation wizard will guide you through the port installation procedure, starting with port 0. NOTE: Use the instructions given in step 3 above to locate the driver file.
7. Use the **Device Manager** to check if the installation of the board and ports was successful. Click on the + sign next to **Hardware**, and then check under **Multi-port serial adapters** and **Ports (COM & LPT)**. If there are any special marks, such as a question mark or exclamation point in front of the board or port icons, examine the **Event Log** as a first step to determine where the problem is.

##### Windows 2000 Driver Installation

1. After powering on your PC, Windows 2000 will automatically detect the CP-204J board.
2. Insert the CP-204J software CD in your CD-ROM drive.
3. Select **Search for a suitable driver for my device (recommend)**.
4. In **Optional search location**, checkmark **specify a location**. Navigate to the **\CP-204J\Software\Win2K-XP-2003** folder on the software CD, and then click on **OK** to continue.
5. Click **Continue Anyway** in response to any admonitions that the software hasn't passed Windows Logo testing.
6. After the board has been installed, the installation wizard will guide you through the port installation procedure, starting with port 0. NOTE: Be sure to install the software from the CD's **CP-204J\Software\Win2K-XP-2003** folder.
7. Use the **Device Manager** to check if the installation of the board and ports was successful. Click on the + sign next to **Hardware**, and then check under **Multi-port serial adapters** and **Ports (COM & LPT)**. If there are any special marks, such as a question mark or exclamation point in front of the board or port icons, examine the **Event Log** as a first step to determine where the problem is.

##### Windows 95/98 Driver Installation

1. After powering on your PC, Windows 95/98 will automatically detect the CP-204J board.
2. Insert the CP-204J software CD in your CD-ROM drive.
3. There some differences between the installation procedures for Windows 95 and Windows 98. However, in both cases, be sure to install the driver from the CD's **CP-204J\Software\Win9x\Windows.95** folder.
4. After the board has been installed, the installation wizard will open the port configuration window.

##### Windows NT Driver Installation

1. After powering on your PC, log into NT as Administrator.
2. Copy the folder **CP-204J\Software\WinNT\Windows.nt** to your hard drive.
3. Open the **Control Panel**, click on the **Network** icon, and select the **Adaptors** tab.
4. Click the **Add** button, and then **Have Disk...** in the **Select Network Adapter** window.
5. Specify the exact path to the folder created in step 2. above.
6. Select **MOXA C218Turbo/CP-204J Series multiport board** in the **Select OEM Option** window, and then click on **OK** to start installing the driver.
7. When the Moxa Configuration Panel dialog box appears, click on **Add** to open the **Property** window to modify port settings.

##### Linux Driver Installation

1. Execute the following commands from the Linux prompt:

```
#mount /dev/cdrom /mnt/cdrom
#cd /
#mkdir moxa
#cd moxa
#cp /mnt/cdrom/<driver directory>/mxdrv.tgz .
#tar xvfz mxdrv.tgz
```
2. 

```
#cd mxdrv
#make clean; make install
```
3. 

```
#cd /moxa/mxdrv/driver
# ./mxmknod
```
4. Load the Moxa Driver:

```
#insmod moxa
```
5. Download the firmware:

```
#cd /moxa/mxdrv/driver
# ./moxaload -y
```
6. You can use the Moxa diagnostic utility to verify the driver status:

```
#cd /moxa/mxdrv/utility/diag
# ./mxdiag
```
7. You can use the Moxa terminal utility to test the tty ports:

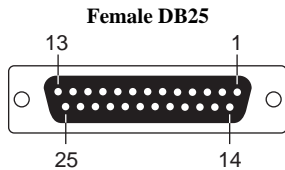
```
#cd /moxa/mxdrv/utility/term
# ./mxterm
```

## 5. Pin Assignments

CP-204J boards have four 10-pin RJ45 ports on the board. Moxa provides four optional cables that can be used to connect the board's ports to DB9 (male or female) or DB25 (male or female) connectors. In the following figures, we give the pin assignments for the serial device side of the four connection options.

### CN20030

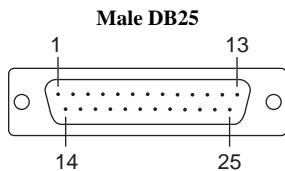
10-pin RJ45 to female DB25 cable



Pin	RS-232
2	TxD
3	RxD
4	RTS
5	CTS
6	DSR
7	GND
8	DCD
20	DTR

### CN20040

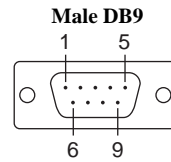
10-pin RJ45 to male DB25 cable



Pin	RS-232
2	TxD
3	RxD
4	RTS
5	CTS
6	DSR
7	GND
8	DCD
20	DTR

### CN20060

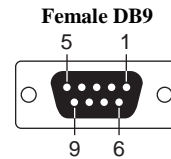
10-pin RJ45 to male DB9 cable



Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS

### CN20070

10-pin RJ45 to female DB9 cable



Pin	RS-232
1	DCD
2	TxD
3	RxD
4	DSR
5	GND
6	DTR
7	CTS
8	RTS

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