¡Soluciones!

SIESA

Para el ahorro y control de la energía eléctrica

Distribuidor autorizado:

MOXA®

CP-118EL/CP-168EL/CP-104EL PCI Express Multiport Serial Board Quick Installation Guide

First Edition, April 2006

1. Overview

MOXA's new PCI Express Multiport Serial Boards, named CP-118EL, CP-168EL, and CP-104EL, are designed for POS and ATM applications and for use by industrial automation system manufacturers and system integrators. The boards are compatible with all popular operating systems, and each board supports data rates of up to 921.6 Kbps and provides full modem control signals, ensuring compatibility with a wide range of serial peripherals. In addition, CP-118EL, CP-168EL, and CP-104EL work with PCI Express ×1, allowing the boards to be installed in any available PCI Express slot (including ×1, ×2, ×4, ×8, ×16, ×32).

2. Package Checklist

Before installing the PCI Express board, verify that the package contains the following items:

- 1 PCI Express serial board
- Documentation and Software CD
- Quick Installation Guide
- Low Profile Bracket

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

3. Hardware Installation Procedure

The PCI Express board MUST be plugged into the PC before the driver is installed. Follow these steps to install the board in the PC.

STEP 1: Power off the PC. (If you are installing CP-118EL, go to STEP 2; otherwise, go to STEP 3.)

STEP 2: Use the DIP switches on the board to select the serial interface. Refer to the Mode vs. DIP switch table below (also shown on the CP-118EL board):

Mode	S1	S2	S3
RS-232	---	---	ON
RS-422	---	ON	OFF
4-wire RS-485	ON	OFF	OFF
2-wire RS-485	OFF	OFF	OFF

STEP 3: Plug the board firmly into an open PCI Express slot.

STEP 4: Fasten the holding screw to fix the control board in place.

STEP 5: Connect the connection cable.

P/N: 1802001181000

STEP 6: Power on the PC; the BIOS will automatically set the IRQ and I/O address.

4. Software Installation Information

The board MUST be plugged in before installing the driver. See the previous section for instructions on how to install the board in your PC. Refer to the PCI Express Board User's Manual for detailed instructions on installing the drivers for this board.

NOTE: *The following procedure shows how to install the CP-118EL driver*

WARNING

1. If you are installing a PCI Express board on an ASUS A8N Series (AMD CPU) motherboard and the installation process hangs the first time, then restart the PC to reinstall it.
2. If you are using a Serial ATA HDD under DOS, the installation process will also hang. In this case, change your HDD to IDE drive.

Windows 2003/XP (32-bit/64-bit) Driver Installation

1. After powering on your PC, Windows 2003/XP will automatically detect the PCIe board.
2. Insert the PCIe 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**, select the **Include this location in the search**, and then click **Browse**. If the system is a 32-bit (x86) platform, navigate to the **\CP-118EL\Software\Windows XP_2003\x86** folder on the CD, if the system is 64-bit (x64) platform, navigate to the **\CP-118EL\Software\Windows XP_2003\x64** folder on the CD, and then click **Next** to continue.
5. Click **Continue Anyway** in response to any warnings that the software has not 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.
7. Use the **Device Manager** to check the installation of the board and ports. Click the + sign next to **Hardware**, and then check **Multi-port serial adapters** and **Ports (COM & LPT)**. If there are warning marks, such as a question mark or exclamation point in front of the board or port icons, examine the **Event Log** to determine the problem.

Windows 2000 Driver Installation

1. After powering on your PC, Windows 2000 will automatically detect the PCIe board.
2. Insert the PCIe software CD in your CD-ROM drive.
3. Select **Search for a suitable driver for my device (recommended)**.
4. Under **Optional search location**, select **specify a location**. Navigate to the **\CP-118EL\Software\Win2K** folder on the software CD.
5. Click **Continue Anyway** in response to any warnings that the software has not 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-118EL\Software\Win2K*** *folder.*
7. Use the **Device Manager** to check the installation of the board and ports. Click the + sign next to **Hardware**, and then check **Multi-port serial adapters** and **Ports (COM & LPT)**. If there are warning marks, such as a question mark or exclamation point in front of the board or port icons, examine the **Event Log** to determine the problem.

Linux Driver Installation

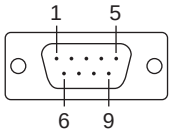
1. Execute the following commands from the Linux prompt:
```
#mount /dev/cdrom /mnt/cdrom
#cd /
#mkdir moxa
#cd moxa
#cp /mnt/cdrom/<driver directory>/mxser.tgz .
#tar xvfz mxser.tgz
```
2. `#cd mxser`
   `#make clean; make install`
3. `#cd /moxa/mxser/driver`
   `#./msmknod`
4. `#modprobe mxser`
5. Use the MOXA diagnostic utility to verify the driver status:
   `#cd /moxa/mxser/utility/diag`
   `#./msdiag`
6. Use the Moxa terminal utility to test the tty ports:
   `#cd /moxa/mxser/utility/term`
   `#./msterm`

5. Pin Assignments

CP-118EL and CP-168EL

Opt8-D+/Opt8-M9+

Male DB9

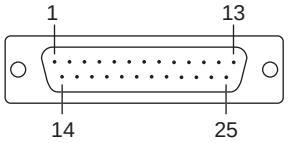


Pin	RS-232	RS-422 / 4-wire RS-485	2-wire RS-485
1	DCD	TxD-(A)	---
2	RxD	TxD+(B)	---
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	---	---
7	RTS	---	---
8	CTS	---	---
9	---	---	---

CP-118EL and CP-168EL

Opt8B+/C+

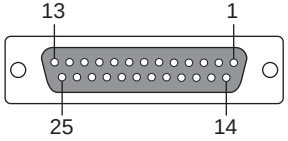
Male DB25



Pin	RS-232	RS-422 / 4-wire RS-485	2-wire RS-485
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	---
4	RTS	---	---
5	CTS	---	---
6	DSR	---	---
7	GND	GND	GND
8	DCD	TxD-(A)	---
20	DTR	RxD-(A)	Data-(A)

Opt8A+/S+

Female DB25

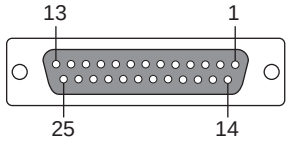


Pin	RS-232	RS-422 / 4-wire RS-485	2-wire RS-485
2	RxD	TxD+(B)	---
3	TxD	RxD+(B)	Data+(B)
4	CTS	---	---
5	RTS	---	---
6	DTR	RxD-(A)	Data-(A)
7	GND	GND	GND
8	DCD	TxD-(A)	---
20	DSR	---	---

CP-168EL

Opt8F+/Z+

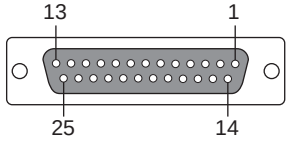
Female DB25



Pin	RS-422
2	RxD+(B)
3	TxD+(B)
14	RxD-(A)
16	TxD-(A)
7	GND

Opt8K+/I+

Female DB25



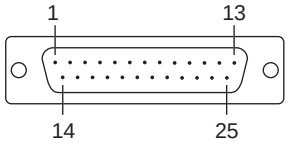
Pin	RS-422 / 4-wire RS-485	2-wire RS-485
2	RxD+(B)	Data+(B)
3	TxD+(B)	---
14	RxD-(A)	Data-(A)
16	TxD-(A)	---
7	GND	GND

CP-104EL

CBL-M44M25x4-50:

Male DB44 to male DB25 × 4, 50 cm

Male DB25

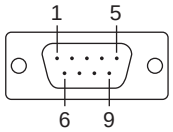


Pin	RS-232
2	TxD
3	RxD
4	RTS
5	CTS
6	DSR
7	GND
8	DCD
20	DTR

CBL-M44M9x4-50:

Male DB44 to male DB9 × 4, 50 cm

Male DB9



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

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