

PCI Express Multiport Serial Board Series Quick Installation Guide

Version 2.4, January 2023

Technical Support Contact Information
www.moxa.com/support

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P/N: 1802001182045



Overview

Moxa's new PCI Express Multiport Serial Boards series is designed for POS and ATM applications and for use by industrial automation system manufacturers and system integrators.

Package Checklist

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

- 1 MOXA multiport serial board (1 PCI Express board or 1 PCI Express-A Intelligent board)
- Low-profile bracket (low profile models only)
- Quick installation guide (printed)
- Warranty card

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

Hardware Installation Procedure

The PCI Express board **MUST** be plugged into the PC before the driver is installed.

Follow the steps below.

1. **Install the board.** Power off the PC and then plug the board firmly into any open PCI Express slot.
2. **Plug the connection cable into the board's connector.** (Refer to **Pin Assignments** for the cable pin assignment).
3. **Start system and verify the driver initialization.**

Software Installation Information

1. **Get the driver at www.moxa.com.** Base on the OS type, choosing the corresponding driver.

2. **Installing the driver:**

- **For Windows OS** (Take the installation of Win7 as an example)

- 2.1. Unzip and execute the .exe file
- 2.2. Follow the instructions to install the drivers

- **For Linux**

Execute the following commands from the Linux prompt:

- 2.1. Get the driver at www.moxa.com and unzip the file:
#cd /
#mkdir moxa
#cd moxa
#cp /<driver directory>/driv_linux_smart_<version>_build_<build_date>.tgz.
#tar -zxvf
driv_linux_smart_<version>_build_<build_date>.tgz
- 2.2. Install the driver:
#cd mxser
#./mxinstall

- 2.3. Verify the driver status
Use the Moxa diagnostic utility to verify the driver status:
`#cd /moxa/mxser/utility/diag`
`#./msdiag`
- 2.4. Test the tty port
Use the Moxa terminal utility to test the tty ports:
`#cd /moxa/mxser/utility/term`
`#./msterm`

3. Intelligent RS-485

The following models support the intelligent RS-485 feature:

- CP-134EL-A-I without a cable
- CP-134EL-A-I-DB9M
- CP-134EL-A-I-DB25M
- CP-138E-A-I without a cable
- CP-118E-A-I without a cable
- CP-116E-A without a cable

If your multiport serial board is one of the above models, and has an RS-485 2W interface, then you could follow the sections below to complete the intelligent RS-485 setting.

NOTE The other PCIe multiport serial boards don't support the intelligent RS-485 feature.

- **For Windows OS**
 - 3.1. Go to the device management to complete the model properties setting.
 - 3.2. Click **Start Diagnosis**. (It should be RS-485-2W). If the status is **OK**, nothing further needs to be done. If the status is **Waveform Distortion, Data Error, or Receive Reflect Signal**, go to next step to do the auto tuning
 - 3.3. Auto Tuning
Still in the **Properties Settings** page, click on the COM number that shows the error message.
Click **Auto Tuning**.
Click **OK** to apply the setting change for the bias resistor and termination resistor.
- **For Linux**
Follow these steps to configure the Intelligent RS-485 in Linux
 - 3.1. Detect the configurations of the port by the following command:
`#./muestty -g /dev/ttyMUE1#cd /`
 - 3.2. Use the following command to run diagnosis to see if the setting is correct.
`#./muestty -d /dev/ttyMUE1`
 - 3.3. If the alarm status shows **OK**, nothing further needs to be done. If the alarm status shows **Fail**, then there are problems with the setting. Do the auto-tuning process with the following command
`#./muestty -a /dev/ttyMUE1`

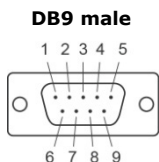
- 3.4. Manually configure the Pull Up/Down resistor and the terminator resistor with the assigned values:
`#!/muestty -p (assigned value) /dev/ttyMUE1`
`#!/muestty -t (assigned value) /dev/ttyMUE1`
- 3.5. Do the diagnosis again:
`#!/muestty -d /dev/ttyMUE1`

Pin Assignments

CP-102E / CP-102EL

Male DB9 (CBL-M25M9x2-50 for CP-102EL)

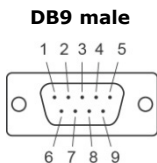
Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS



CP-132EL/CP-132EL-I

Male DB9 (Device side)

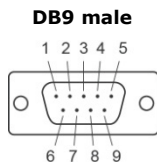
Pin	RS-422/ RS-485-4W	RS-485-2W
1	TxD-(A)	-
2	TxD+(B)	-
3	RxD+(B)	Data+(B)
4	RxD-(A)	Data-(A)
5	GND	GND
6	-	-
7	-	-
8	-	-



CP-114EL/CP-114EL-I

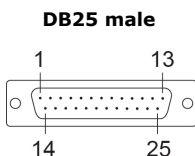
Male DB9 (CBL-M44M9x4-50)

Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
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	-	-	-

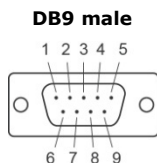


Male DB25 (CBL-M44M25x4-50)

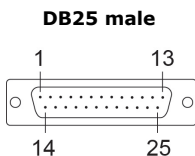
Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	-
4	RTS	-	-
5	CTS	-	-
6	DSR	-	-
7	GND	GND	GND
8	DCD	TxD-(A)	-
20	DTR	RxD-(A)	Data-(A)

**CP-118E-A-I / CP-138E-A-I****Male DB9 (CBL-M78M9x8-100)**

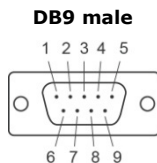
Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
1	DCD	TxD-(A)	-
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-

**Male DB25 (CBL-M78M25x8-100)**

Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
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)

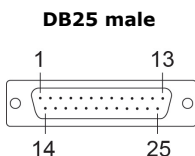
**CP-134EL-A-I****Male DB9 (CBL-M44M9x4-50)**

Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
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	-	-

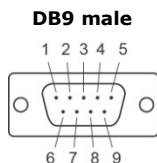


Male DB25 (CBL-M44M25x4-50)

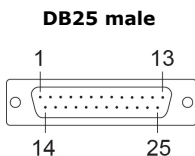
Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	-
4	RTS	-	-
5	CTS	-	-
6	DSR	-	-
7	GND	GND	GND
8	DCD	TxD-(A)	-
20	DTR	RxD-(A)	Data-(A)

**CP-116E-A****Male DB9 (OPT8-M9+ / CBL-M68M9x8-100)**

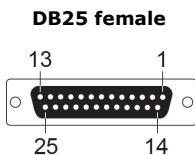
Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
1	DCD	TxD-(A)	-
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-

**Male DB25 (OPT8B+ / CBL-M68M25x8-100)**

Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
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)

**Female DB25 (OPT8A+/S+)**

Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
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	-	-





사용자안내문

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(This equipment has KC approval for use in industrial environments and could possibly interfere with household equipment.)

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