



MOXA CP-168U PCI Express Multiport Serial Board Installation Guide

[Home](#) » [MOXA](#) » MOXA CP-168U PCI Express Multiport Serial Board Installation Guide 

MOXA CP-168U PCI Express Multiport Serial Board Installation Guide



Contents

- [1 Overview](#)
- [2 Package Checklist](#)
- [3 Hardware Installation Procedure](#)
- [4 Software Installation Information](#)
- [5 Pin Assignments](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)

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

- **ForLinux**

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 //driv_linux_smart__build_.tgz. #tar -zxvf driv_linux_smart__build_.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** (If your multiport serial board is CP-102E/CP-102EL, CP-132EL/CP-132EL-I, or CP-114EL/CP-114EL-I, then your software installation is completed.

On the other hand, if your multiport serial board is PCI Express-A, and with interface RS-485-2W, then you should follow this section to complete the intelligent RS-485 setting.)

- **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

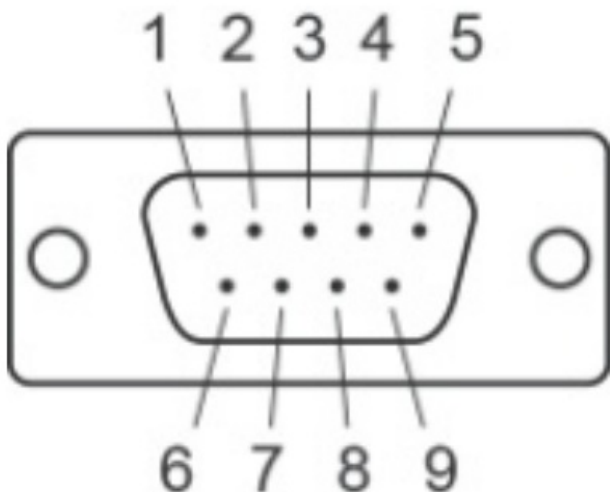
- 3.3. Auto Tuning
Still in the Properties Settings page, click on the COM number that shows the error message.
Click Auto Tuning.
Click OK to apply the setting adjustment for the Bias Resistor and Termination Resistor.
- For Linux
Follow these steps to configure the Intelligent RS-485 in Linux
 - 3.1. 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)

DB9 male

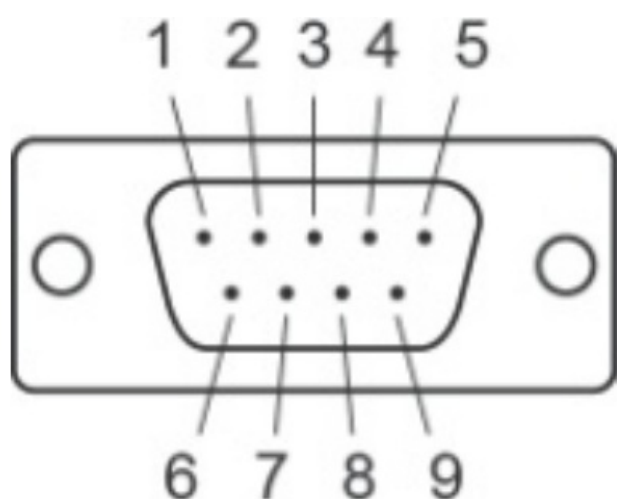


Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS

CP-132EL/CP-132EL-I

Male DB9 (Device side)

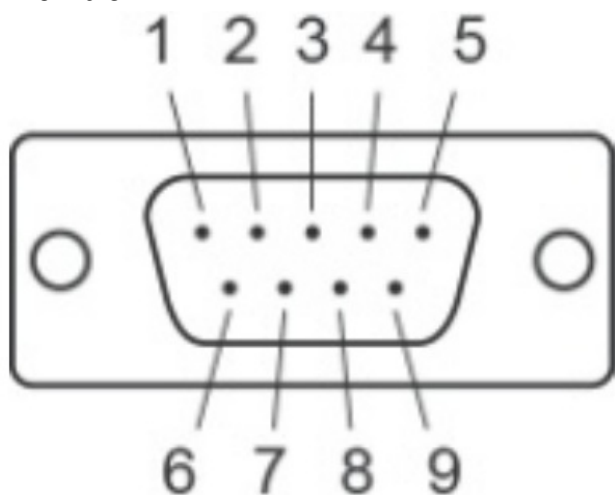
DB9 male



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

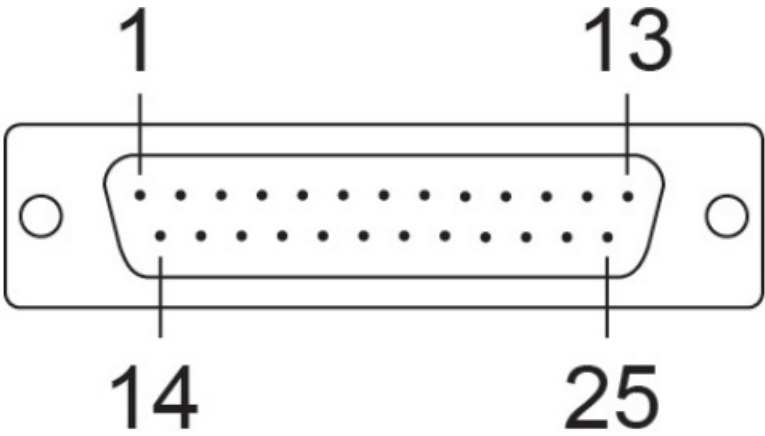
Male DB9 (CBL-M44M9x4-50)
DB9 male



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	DCD	–	–

Male DB25 (CBL-M44M25x4-50)

DB25 male

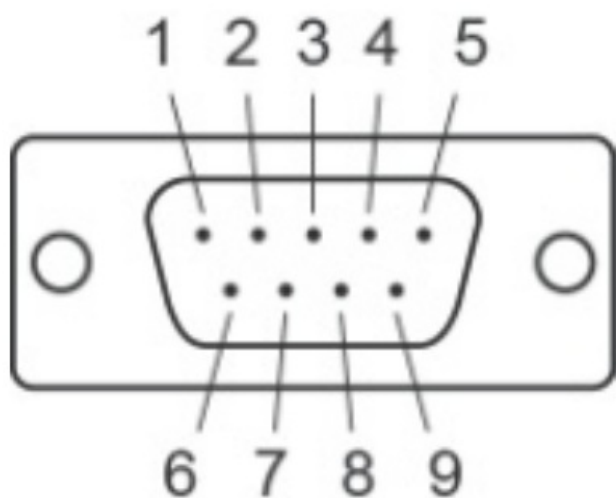


Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	–
4	RTS	–	–
5	CTS	–	–
6	DSR	–	–
7	GND	GND	GND
8	DCD	TxD-(A)	–
20	DTR	RxD-(A)	Data-(A)

CP-118E-A-I / CP-138E-A-I

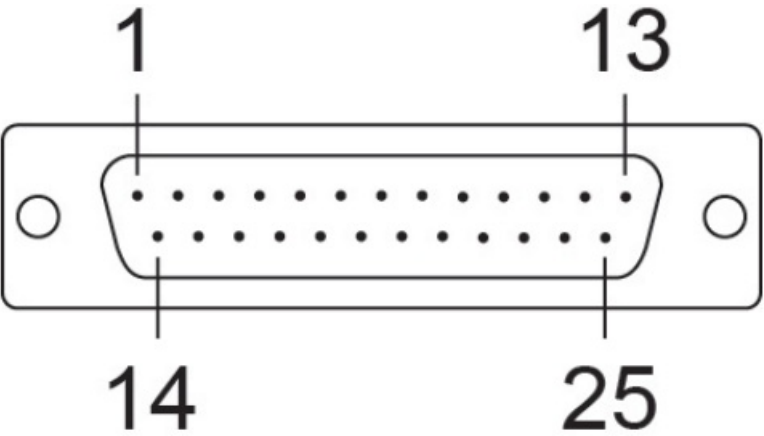
Male DB9 (CBL-M78M9x8-100)

DB9 male



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)
DB25 male

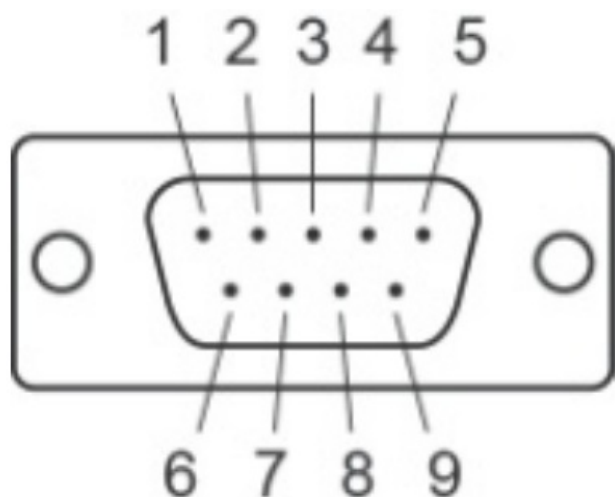


Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	–
4	RTS	–	–
5	CTS	–	–
6	DSR	–	–
7	GND	GND	GND
8	DCD	TxD-(A)	–
20	DTR	RxD-(A)	Data-(A)

CP-134EL-A-I

Male DB9 (CBL-M44M9x4-50)

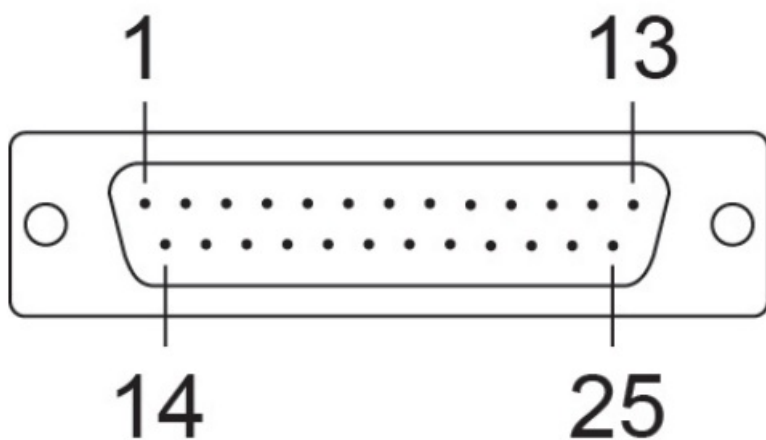
DB9 male



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)

DB25 male

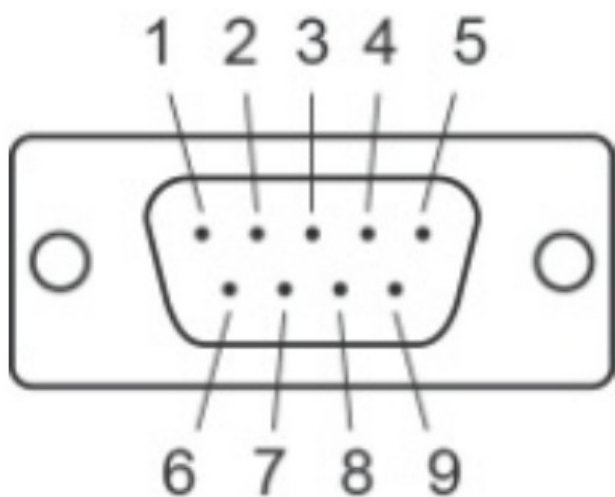


Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	–
4	RTS	–	–
5	CTS	–	–
6	DSR	–	–
7	GND	GND	GND
8	DCD	TxD-(A)	–
20	DTR	RxD-(A)	Data-(A)

CP-116E-A

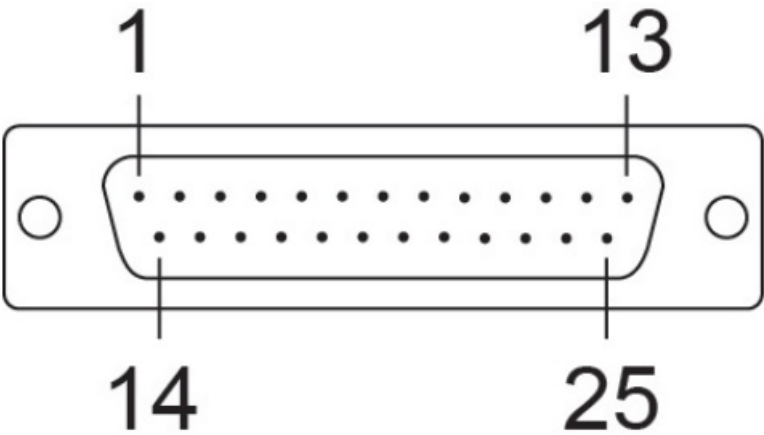
Male DB9 (OPT8-M9+ / CBL-M68M9x8-100)

DB9 male



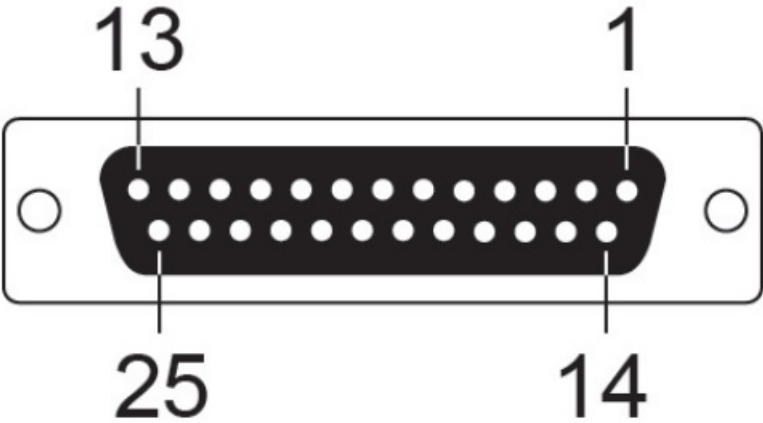
Pin	RS-232	RS-422/ RS-485-4W	RS-485-2W
1	DCD	TxD-(A)	–
2	RxD	TxD+(B)	–
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	–	–
7	RTS	–	–
8	CTS	–	–

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




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+)
DB25 female



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	–	–

Documents / Resources

	<p>MOXA CP-168U PCI Express Multiport Serial Board [pdf] Installation Guide CP-168U, PCI Express Multiport Serial Board, CP-168U PCI Express Multiport Serial Board</p>
---	--

References

- [Moxa - Your Trusted Partner in Automation](#)
- [Moxa - Support](#)

