

# Mini PCI Express Multiport Serial Board Series Quick Installation Guide

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**Technical Support Contact Information**  
[www.moxa.com/support](http://www.moxa.com/support)

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**P/N: 1802001000011**



## Overview

Moxa's new Mini PCI Express Multiport Serial Boards Series fulfills a customized expansion need and provides a faster response to market. We have designed the Mini PCI Express multiport serial boards for use by industrial automation system manufacturers, system integrators, and industrial PC makers.

Moxa's Mini PCIe Express Multiport Serial Boards CP-100N Series includes the following models.

Model Name	Description
CP-102N-T	2-port RS-232 Mini PCI Express serial board
CP-102N-I-T	2-port RS-232 Mini PCI Express serial board with 2.5 kV capacitive isolation
CP-132N-T	2-port RS-422/485 Mini PCI Express serial board
CP-132N-I-T	2-port RS-422/485 Mini PCI Express serial board with 2.5 kV capacitive isolation
CP-104N-T	4-port RS-232 Mini PCI Express serial board
CP-104N-I-T	4-port RS-232 Mini PCI Express serial board with 2.5 kV capacitive isolation
CP-134N-I-T	4-port RS-422/485 Mini PCI Express serial board with 2.5 kV capacitive isolation
CP-114N-T	4-port RS-232/422/485 Mini PCI Express serial board

## Package Checklist

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

- Moxa Mini PCI Express multi-serial board (CP-104N-I-T, CP-134N-I-T, CP-114N-T models have the main board and I/O boards)
- Moxa DB9 brackets
- Internal connection cable 25 cm
- Quick installation guide (printed)
- Warranty card

**NOTE** The cable type, cable volume, and DB9 bracket volume might differ for different product models.

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

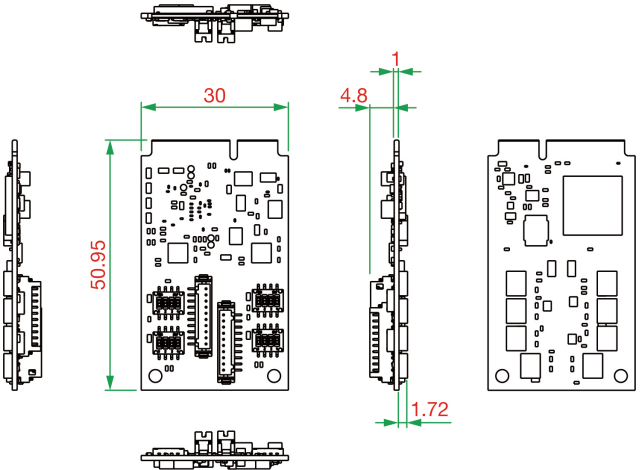
## Optional Accessories

Model	Description	Suitable models
CBL-M9HSF1x10H-15-01	10-pin female to 1 DB9 male serial cable, 15 cm	CP-102N-I-T CP-132N-I-T
CBL-M9HSF1x10H-15-02	10-pin female to 1 DB9 male serial cable, 15 cm	CP-102N-T CP-132N-T
CBL-M9x2HSF2x10H-15	20-pin female to 2 DB9 male serial cable, 15 cm	CP-104N-T
CBL-HSF2x10-15	20-pin female to 20-pin female serial cable, 15 cm	CP-104N-I-T CP-134N-I-T CP-114N-T

# Mechanical Drawing

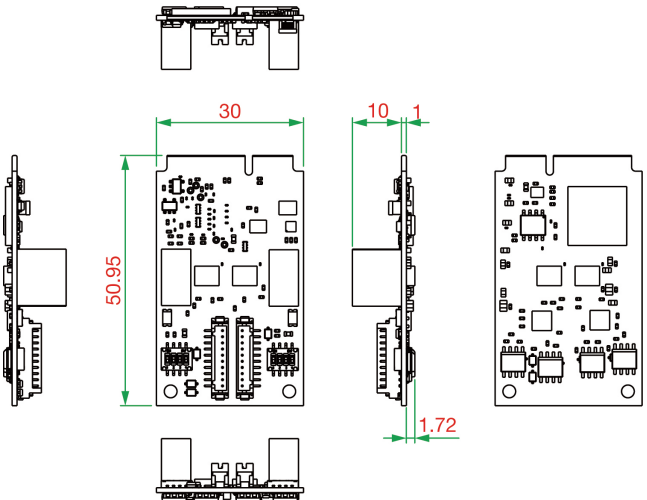
## CP-102N-T/CP-132N-T

Unit: mm



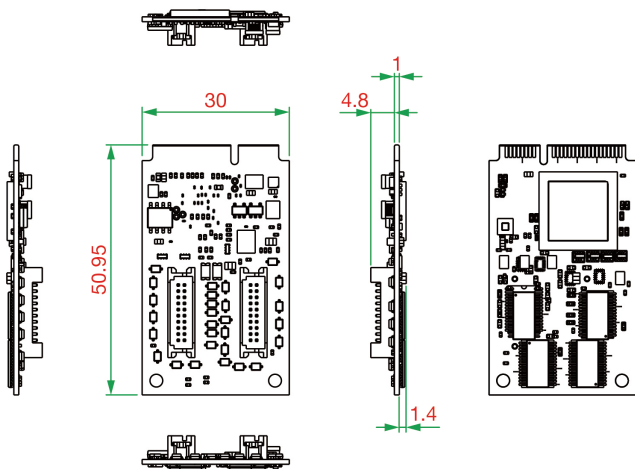
## CP-102N-I-T/CP-132N-I-T

Unit: mm



## CP-104N-T

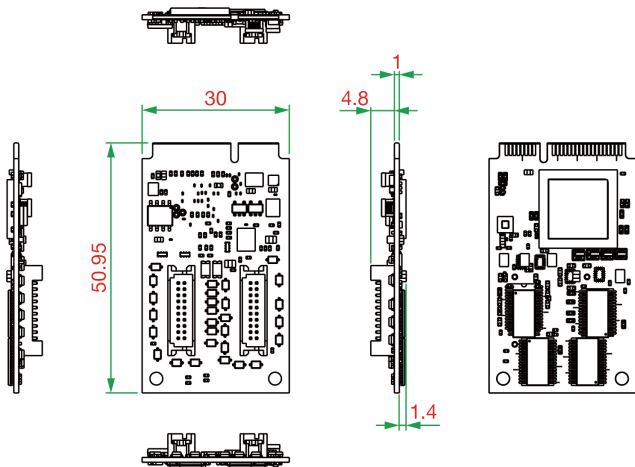
Unit: mm



## CP-104N-I-T/CP-134N-I-T

### Mainboard Dimensions (Mini PCIe)

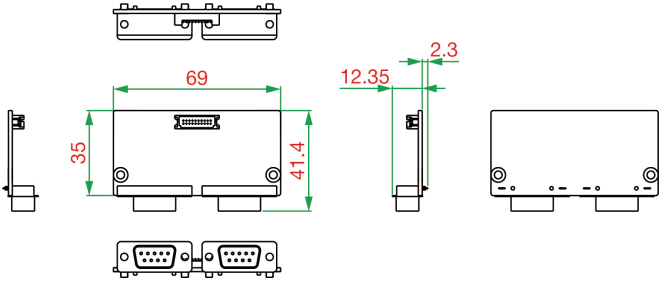
Unit: mm



(Mainboard size is the same with CP-104N-T)

## I/O Board Dimensions

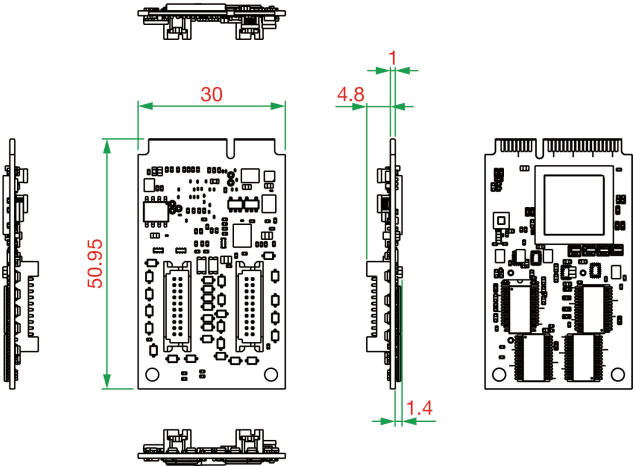
Unit: mm



## **CP-114N-T**

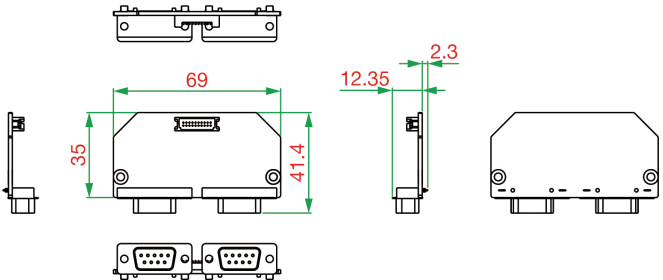
### Mainboard Dimensions (Mini PCIe)

Unit: mm



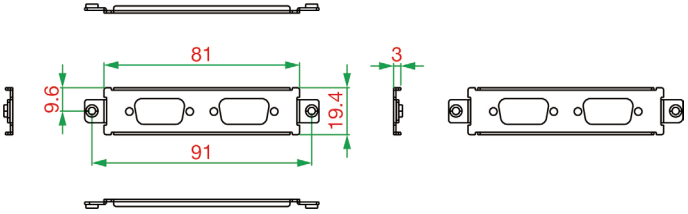
## I/O Board Dimensions

Unit: mm



## Bracket Size

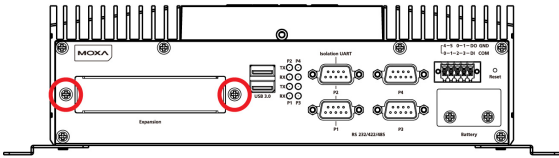
Unit: mm



## Hardware Installation Procedure

The Mini PCI Express board must be plugged into the PC before installing the driver. The following steps show how to install the Moxa Mini PCI express cards.

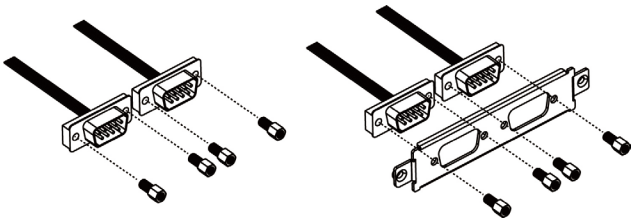
1. Find the Mini PCIe slot in your computer.
2. Insert the Mini PCIe multiport serial board and lock the screws.
3. Unscrew to remove the blank expansion plate. (We use Moxa V2406C as an example.)



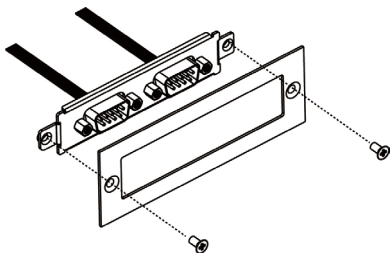
**NOTE** Moxa Mini PCIe multiport serial boards are suitable for Moxa's IPC models that have mini PCIe interfaces and expansion slots, such as the MC-7400 Series, V2403C Series, and V2406C Series. The bracket size matches the expansion slot dimensions of the IPC models.

**For the models (CP-102N-T, CP-102N-I-T, CP-132N-T, CP-132N-I-T, CP-104N-T) without I/O boards.**

4. Unscrew the hexagonal copper pillars on the cable (DB9 Connector) and use them to connect the provided cables with the bracket.



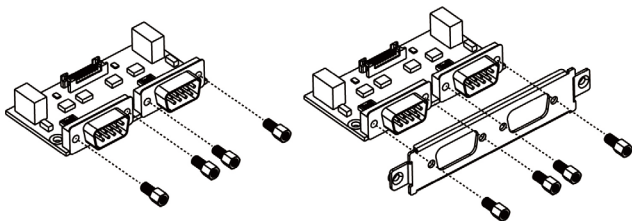
5. Insert the plate through the blank expansion slot and lock the screws.



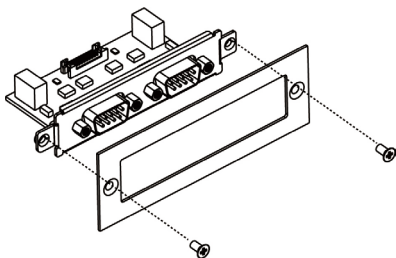
6. Connect the Mini PCIe multiport serial board with the cables.

**For the models (CP-104N-I-T, CP-134N-I-T, CP-114N-T) with I/O boards.**

4. Unscrew the hexagonal copper pillars on the I/O board and lock the I/O board with the bracket.

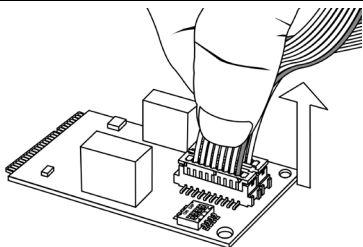


5. Insert the I/O board with the bracket through the blank plate hole and lock the screws.



6. Connect the I/O board to the Mini PCIe multiport serial board with the serial cables.

**NOTE** To pull out the internal connection cable safely from the boards, you should perpendicularly pull it out as shown in the image on the right. Also, pull out the cable gently.



## Software Installation Information

1. Get the driver at [www.moxa.com](http://www.moxa.com). Based on the OS type, choose the corresponding driver.
2. Installing the driver:
  - For Windows OS (Take the installation of Win7 as an example)
    - Unzip and execute the .exe file
    - Follow the instructions to install the drivers
  - For Linux
 

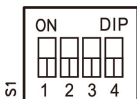
Execute the following commands from the Linux prompt:

    - Get the driver at [www.moxa.com](http://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
```
    - Install the driver:
 

```
#cd mxser
#./mxinstall
```

## DIP Switch Setting



	On	OFF (Default)
SW1	Enable 120-ohm termination resistor	Disable termination resistor
SW2	1K-ohm pull-high/low resistors	150K-ohm Pull-high/low resistors
SW3	Reserved for future feature	
SW4	Reserved for future feature	

## Pin Assignments

### Male DB9

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	-	-

