

MOXA

**CP Series Mini PCI
Express Multiport
Serial Board**



MOXA CP Series Mini PCI Express Multiport Serial Board Installation Guide

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MOXA CP Series Mini PCI Express Multiport Serial Board



Specifications

- Product Name: Mini PCI Express Multiport Serial Board Series
- Model: CP-102N-T, CP-102N-I-T, CP-132N-T, CP-132N-I-T, CP-112N-T, CP-104N-T, CP-104N-I-T, CP-134N-I-T, CP-114N-T
- Manufacturer: Moxa Inc.
- Version: 1.3, August 2024

Overview

Moxa's Mini PCI Express Multiport Serial Boards Series is designed for industrial automation system manufacturers, system integrators, and industrial PC makers to fulfill customized expansion needs with a faster market response.

Package Checklist

Before installation, ensure the package includes the Mini PCI Express board and necessary accessories. Notify the sales representative if any items are missing or damaged.

Hardware Installation Procedure

1. Locate the Mini PCIe slot in your computer.
2. Insert the Mini PCIe multiport serial board and secure it with screws.
3. Remove the blank expansion plate.
4. For models without I/O boards:
 1. Connect the provided cables to the bracket using hexagonal copper pillars.
 2. Insert the plate through the expansion slot and secure it with screws.
 3. Connect the Mini PCIe board with the cables.
5. For models with I/O boards:
 1. Secure the I/O board with the bracket using hexagonal copper pillars.
 2. Insert the I/O board through the hole and secure it with screws.
 3. Connect the I/O board to the Mini PCIe board with serial cables.

FAQ

- **Q: Which models are included in Moxa's Mini PCIe Express Multiport Serial Boards CP-100N Series?**
 - A: The included models are CP-102N-T, CP-102N-I-T, CP-132N-T, CP-132N-I-T, CP-112N-T, CP-104N-T, CP-104N-I-T, CP-134N-I-T, CP-114N-T.
- **Q: How do I verify if all package items are included before installation?**
 - A: Check for the Mini PCI Express board and accessories listed in the package checklist. Contact your sales representative if any items are missing or damaged.
- **Q: Can I use Moxa's Mini PCIe multiport serial boards with any computer?**
 - A: These boards are suitable for Moxa's IPC models that have mini PCIe interfaces and expansion slots. Ensure compatibility with your computer before installation.

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-112N-T	2-port RS-232/422/485 Mini PCI Express serial board
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

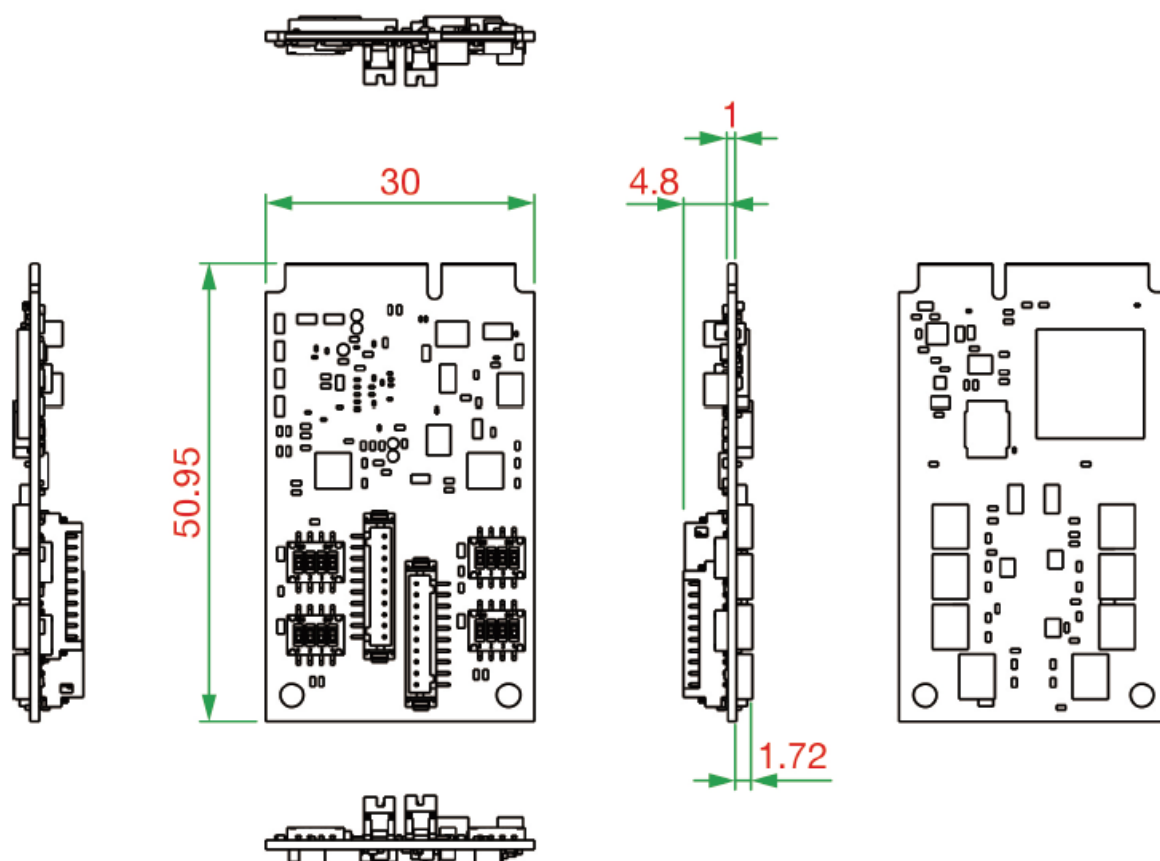
Optional Accessories

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 CP-112N-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

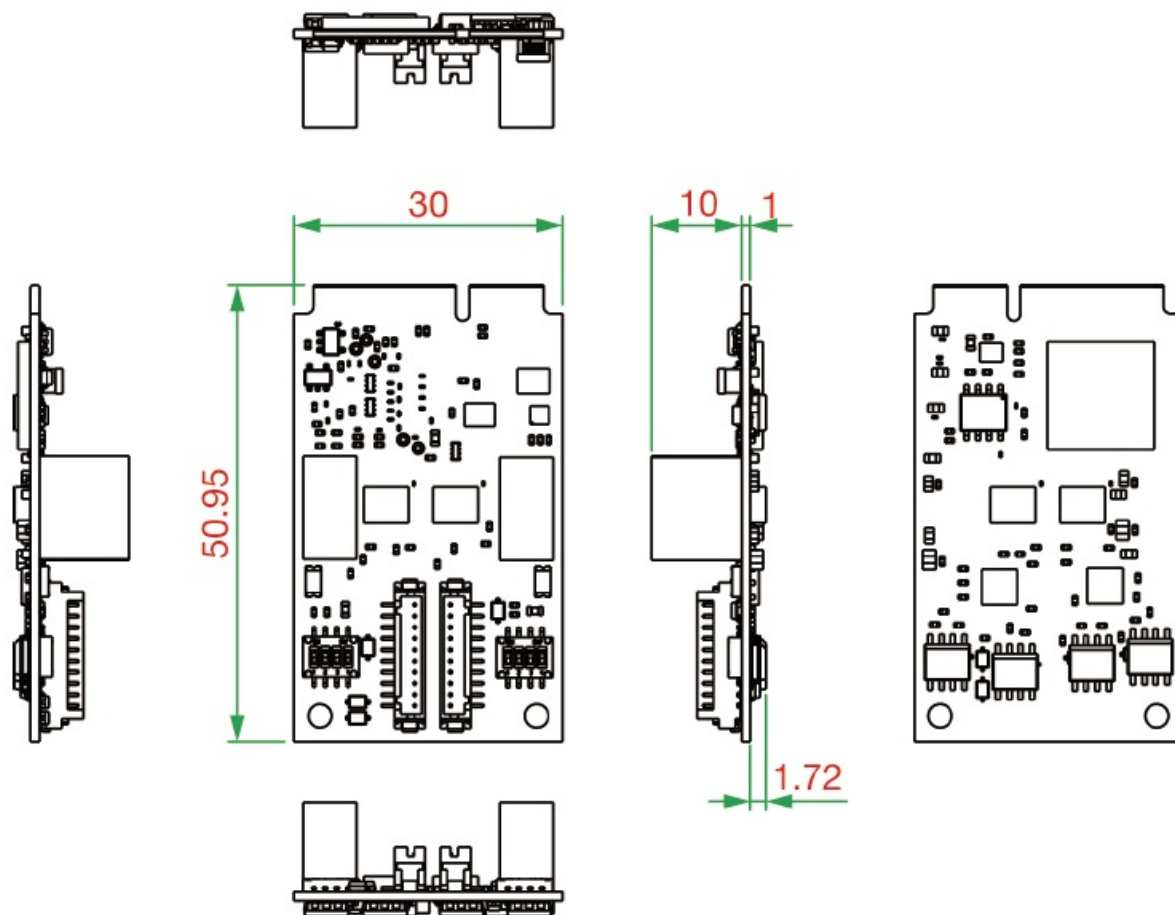
CP-102N-T/CP-112N-T/CP-132N-T

Unit: mm



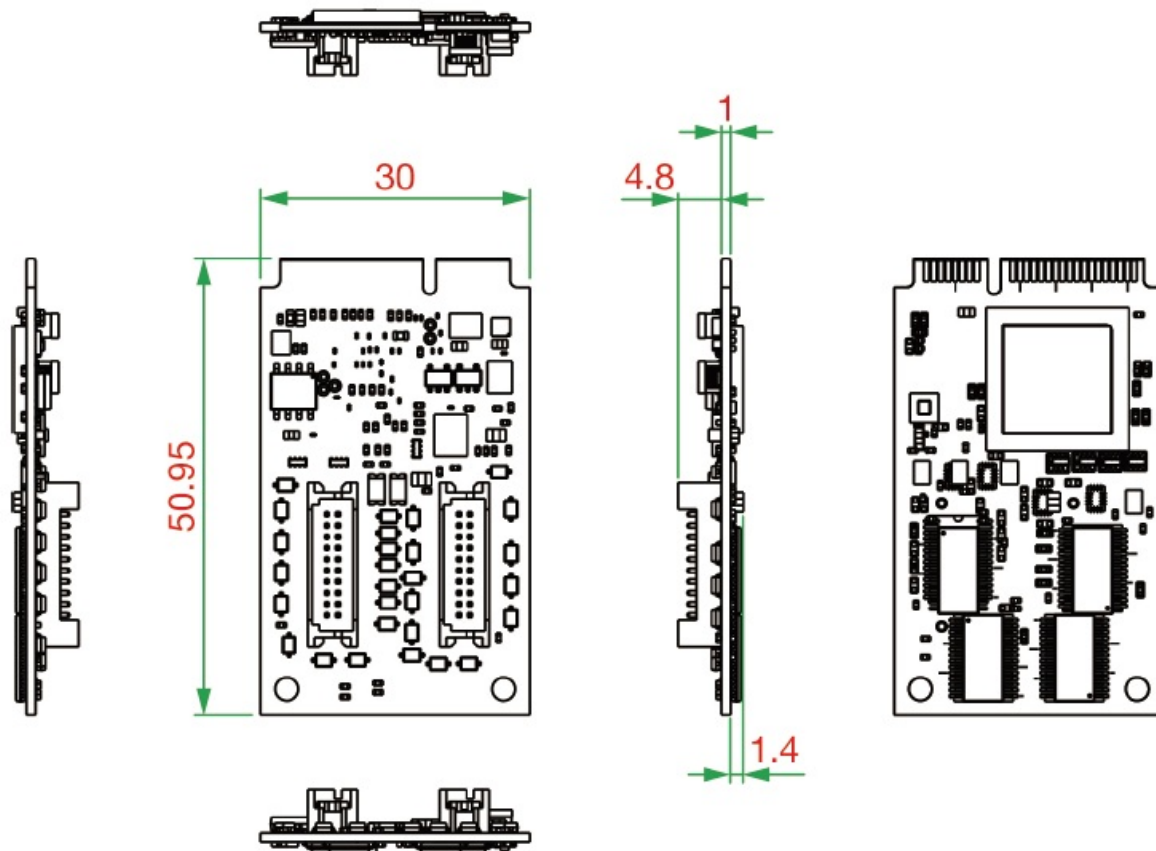
CP-102N-I-T/CP-132N-I-T

Unit: mm



CP-104N-T

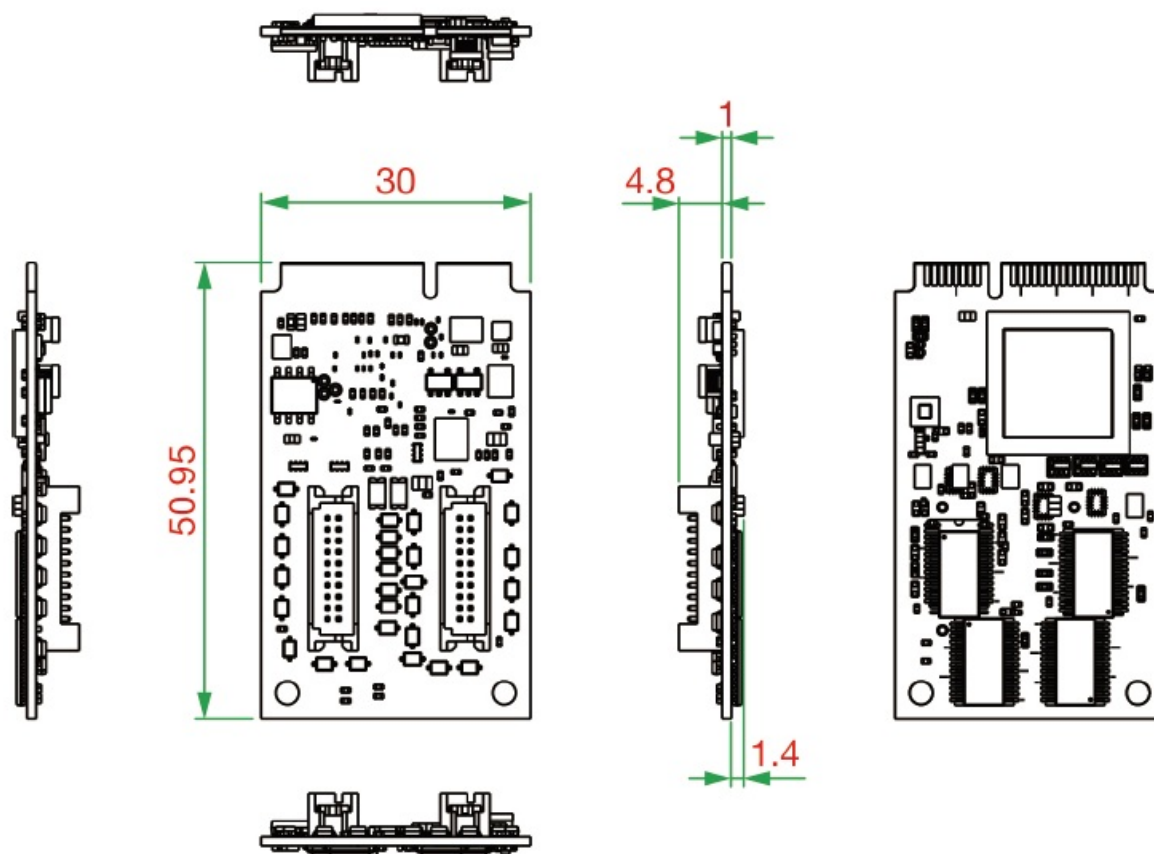
Unit: mm



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

Mainboard Dimensions (Mini PCIe)

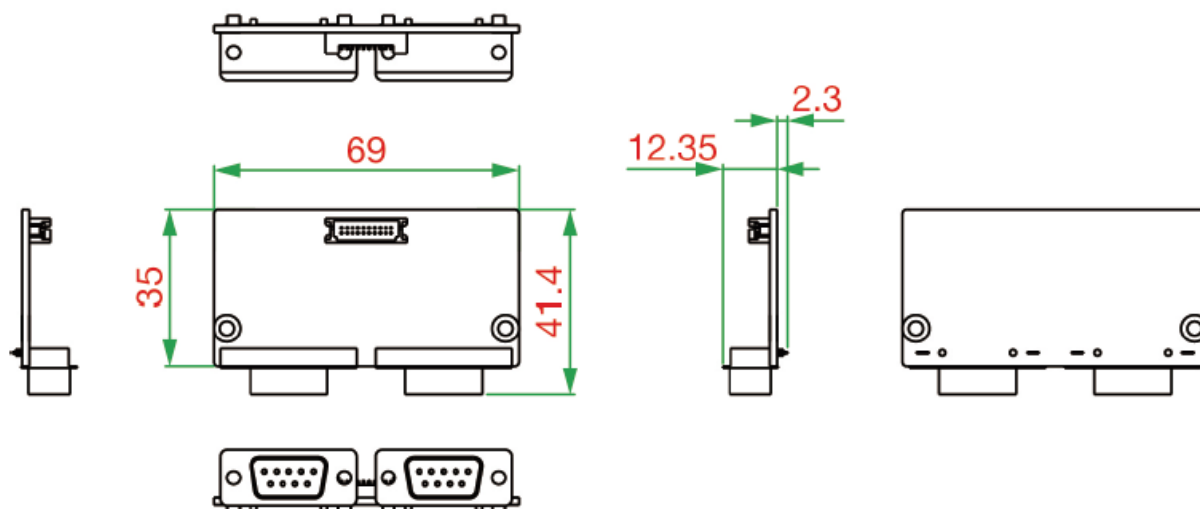
Unit: mm



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

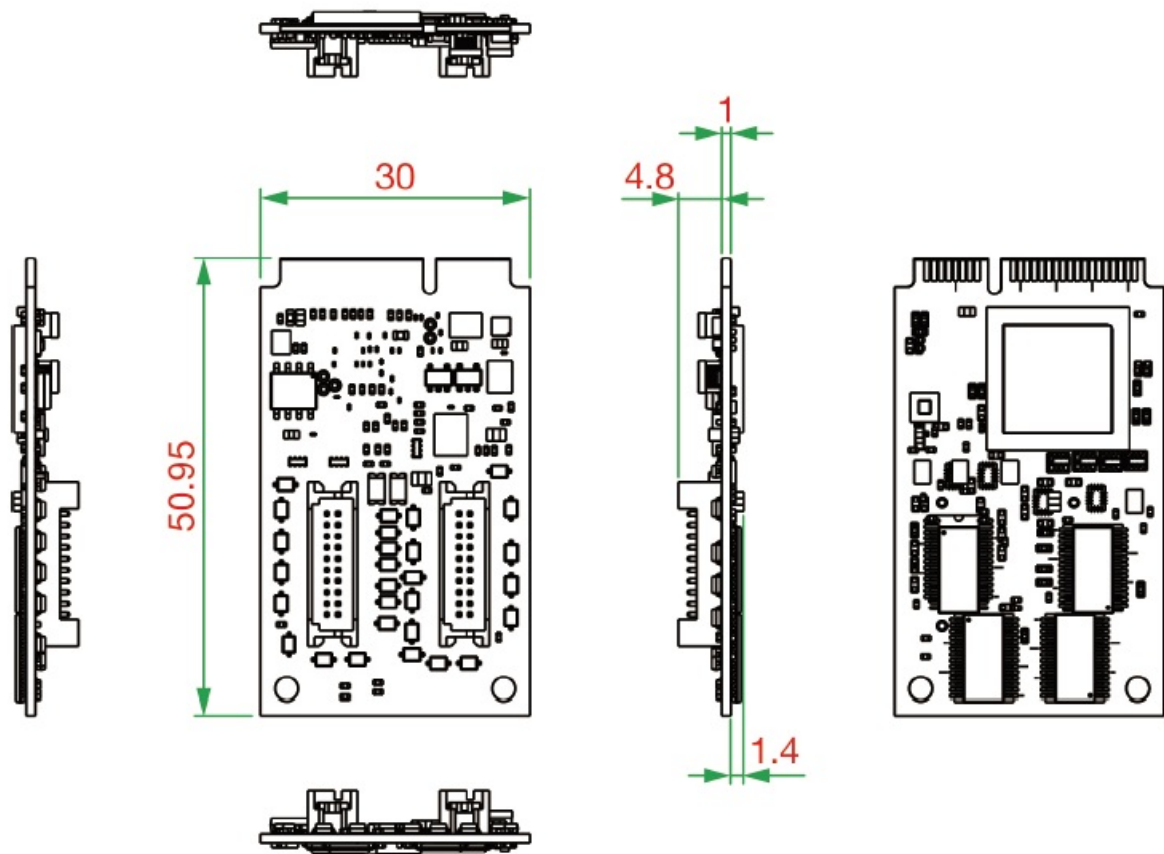
I/O Board Dimensions

Unit: mm

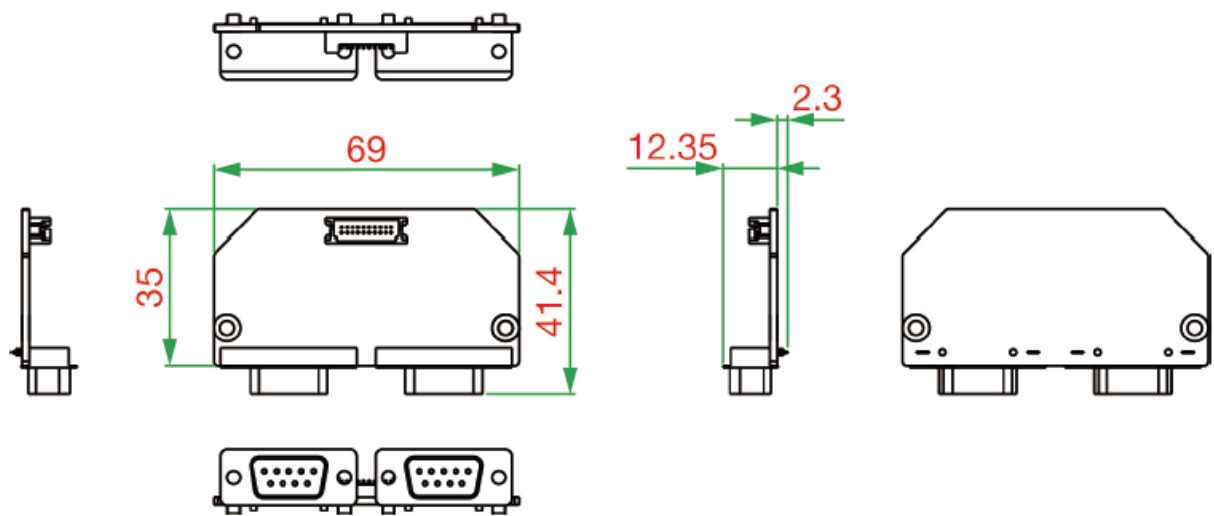


CP-114N-T

Mainboard Dimensions (Mini PCIe)

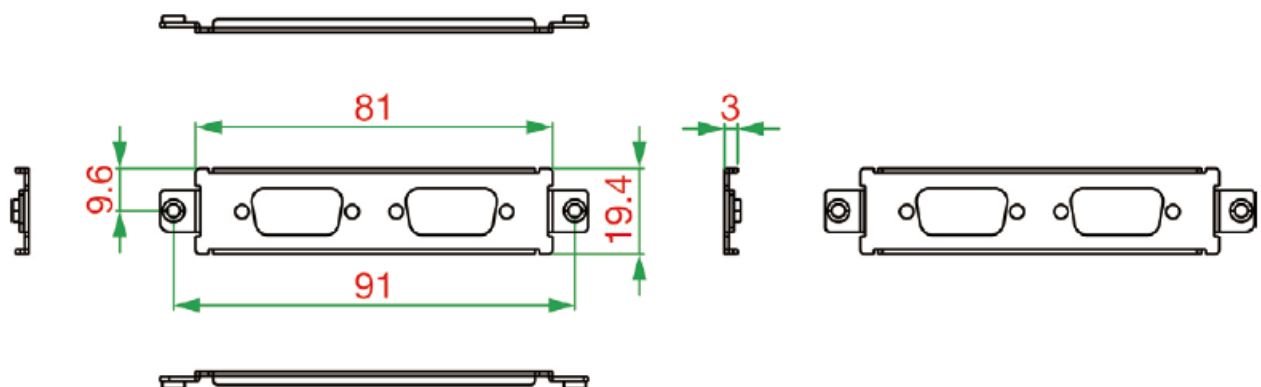


Unit: mm



Bracket Size

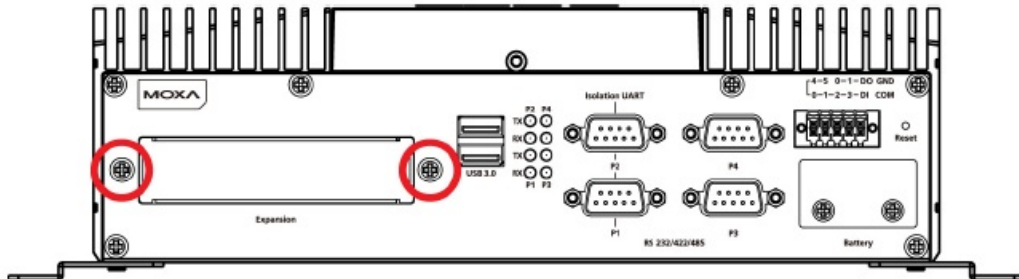
Unit: mm



Hardware Installation Procedure

You must plug the Mini PCI Express board 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.)

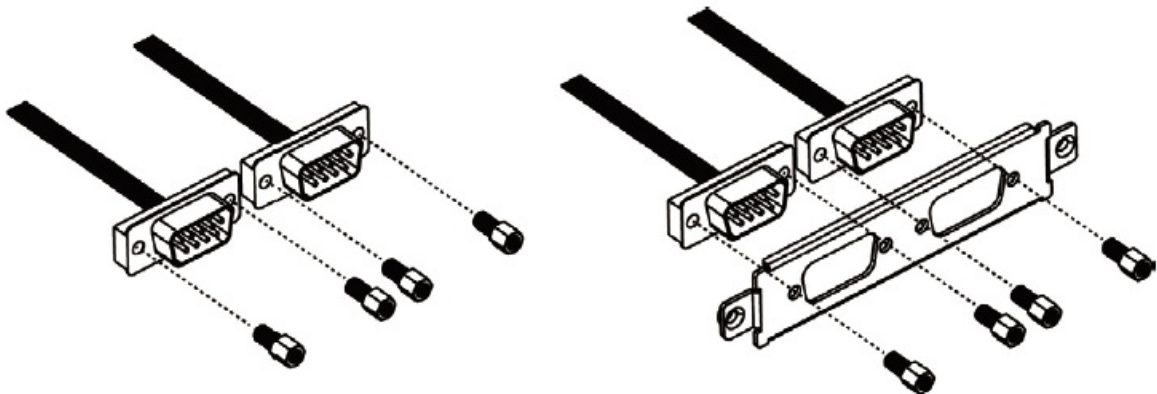


NOTE

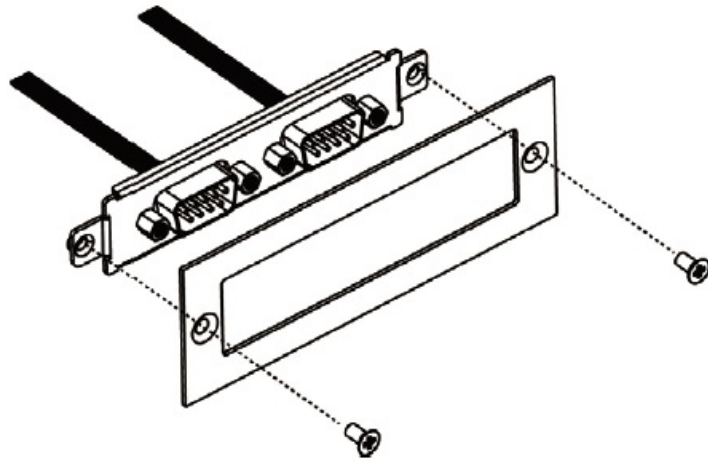
Moxa Mini PCIe multiport serial boards are suitable for Moxa's IPC models that have mini PCIe interfaces and expansion slots, such as the MC-7400 Series, V2403C Series, and V2406C Series. The bracket size matches the expansion slot dimensions of the IPC models.

For the models (CP-102N-T, CP-102N-I-T, CP-112N-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.



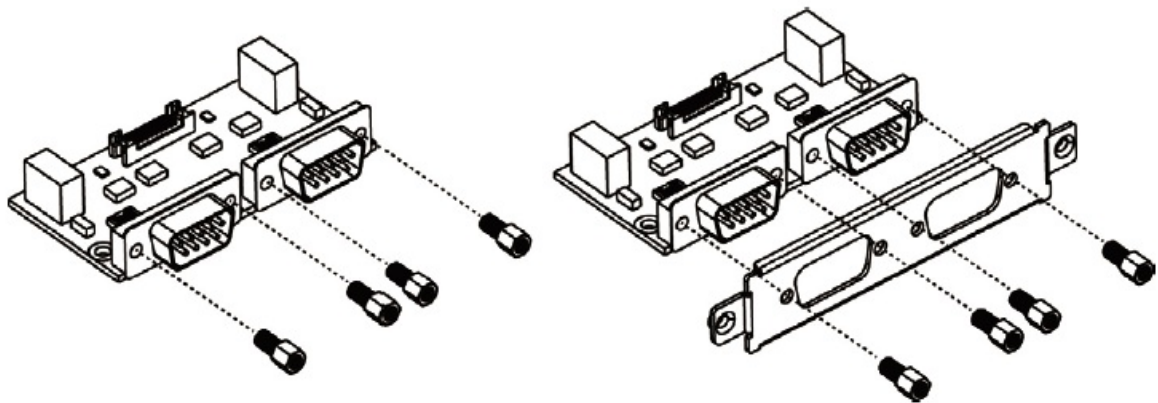
5. Insert the plate through the blank expansion slot and lock the screws.



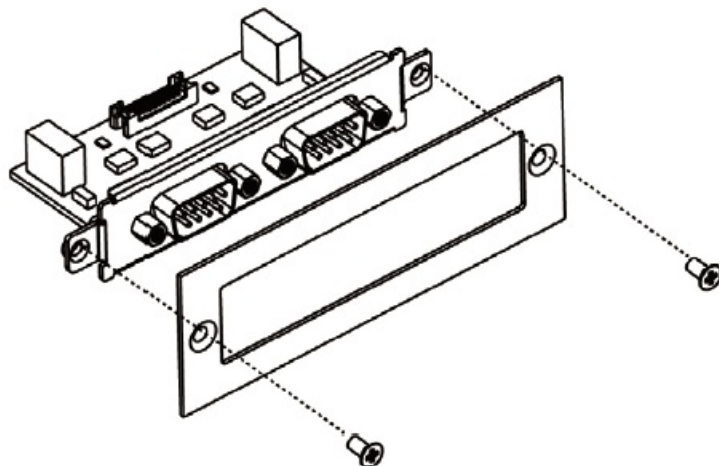
6. Connect the Mini PCIe multiport serial board with the cables.

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

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



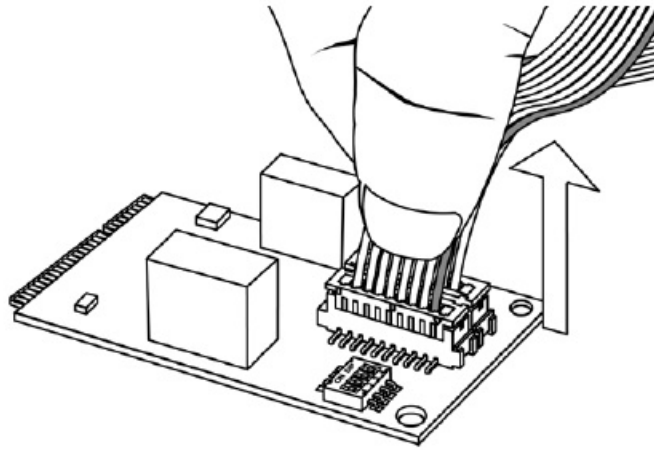
- Insert the I/O board with the bracket through the blank plate hole and lock the screws.



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

NOTE

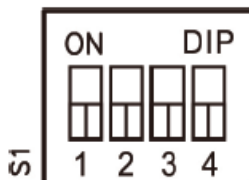
To pull out the internal connection cable safely from the boards, you should perpendicularly pull it out as shown in the image on the right. Also, pull out the cable gently.



Software Installation Information

1. Get the driver at www.moxa.com. 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 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 mixer #./mxinstall`

DIP Switch Setting



	On	Off (Default)
SW1 (Pull High)	1 K Ω	150 K Ω
SW2 (Pull Low)	1 K Ω	150 K Ω
SW3 (Termination)	120 Ω	Disable termination resistor
SW4	Reserved for future feature	

Pin Assignments

Male DB9

