# **CP-132N Series**

# 2-port RS-422/485 Mini PCI Express boards



#### **Features and Benefits**

- Mini PCIe interface support
- 921.6 kbps maximum baudrate for fast data transmission
- 128-byte FIFO and on-chip H/W, S/W flow control
- Drivers provided for a broad selection of operating systems, including Windows and Linux



## Introduction

The CP-132N is a Mini PCI Express multiport serial board designed for various applications and users such as system integrators and industrial automation system and industrial PC manufacturers.

The CP-132N is compatible with most popular operating systems and supports data rates up to 921.6 kbps. It also provides 1 kV line-to-line surge protection and 2.5 kV isolation (for the I model), ensuring compatibility with a wide range of industrial environments. Furthermore, the CP-132N is embedded with a DIP switch for easy adjusting of the terminal and pull-high/low resistors for various environments and applications.

#### RS-485 Multidrop for up to 31 Devices Within 1.2 km

The CP-132N Series boards have two RS-422/485 serial ports, each of which can achieve data rates up to 921.6 kbps. In RS-485 mode, the boards can connect up to 31 daisy-chained RS-485 devices within a range of 1.2 km. For long-distance RS-485 communication, choose the CP-132N-I-T model, which comes with 2.5 kV electrical isolation protection to prevent equipment damage.

#### A New Family of Mini PCI Express Multiport Serial Boards for Faster Time to Market

Moxa's new Mini PCI Express multiport serial board family fulfills the need for customized expansion and enables faster time to market for OEMs and system integrators. It includes Isolated and non-Isolated RS-232/422/485 communication cards for various applications.

The serial boards feature high performance 16C950 compatible UARTs and are available in 4-port and 2-port versions compatible with all popular operating systems. They support data rates of up to 921.6 kbps and have 128-byte transmit and receive FIFOs. The serial boards can operate in the -40 to 85°C temperature range. Door brackets are included in the package for all models, enabling the installation of the serial boards in a Moxa IPC expansion slot.

# **Specifications**

#### Serial Interface

| Comm. Controller | 16C550C compatible                                     |
|------------------|--|
| Bus              | Mini PCI Express                                       |
| Connector        | DB9 male   |
| FIFO             | 128 bytes  |
| No. of Ports     | 2  |
| Baudrate         | 50 bps to 921.6 kbps (supports non-standard baudrates) |
| Data Bits        | 5, 6, 7, 8   |
| Stop Bits        | 1, 1.5, 2  |



| Parity                                 | None<br>Even<br>Odd<br>Space<br>Mark   |  |
|--|--|--|
| Flow Control                           | None<br>XON/XOFF   |  |
| Serial Standards                       | RS-422<br>RS-485   |  |
| Isolation                              | I models: 2.5 kV   |  |
| Serial Signals                         |  |  |
| RS-422                                 | Tx+, Tx-, Rx+, Rx-, GND  |  |
| RS-485-4w                              | Tx+, Tx-, Rx+, Rx-, GND  |  |
| RS-485-2w                              | Data+, Data-, GND  |  |
| Serial Software Features               |  |  |
| Windows Drivers                        | Windows 11, 10, 8.1, 8, 7, 2008, Vista, 2003, XP<br>Windows Server 2022, 2019 (64-bit), 2016, 2012 R2, 2012, 2008 R2<br>Windows Embedded CE 6.0 and 5.0, Windows XP Embedded   |  |
| Linux Drivers                          | Linux kernel 5.x<br>Linux kernel 4.x   |  |
| Power Parameters                       |  |  |
| Input Current                          | CP-132N-T: 487 mA @ 3.3 VDC<br>CP-132N-I-T: 533 mA @ 3.3 VDC   |  |
| Physical Characteristics               |  |  |
| Dimensions                             | 30 x 50.95 mm (1.18 x 2 in)  |  |
| Environmental Limits                   |  |  |
| Operating Temperature                  | -40 to 85°C (-40 to 185°F)   |  |
| Storage Temperature (package included) | -20 to 85°C (-4 to 185°F)  |  |
| Ambient Relative Humidity              | 5 to 95% (non-condensing)  |  |
| Standards and Certifications           |  |  |
| EMC                                    | EN 55032/35  |  |
| ЕМІ                                    | CISPR 32, FCC Part 15B Class B   |  |
| EMS                                    | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m<br>IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV<br>IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV<br>IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m<br>IEC 61000-4-8 PFMF |  |
| Declaration                            |  |  |
| Green Product                          | RoHS, CRoHS, WEEE  |  |
| MTBF                                   |  |  |
| Time                                   | CP-132N-T: 4,128,967 hrs<br>CP-132N-I-T: 3,583,931 hrs   |  |
| Standards                              | Telcordia (Bellcore) Standard TR/SR  |  |



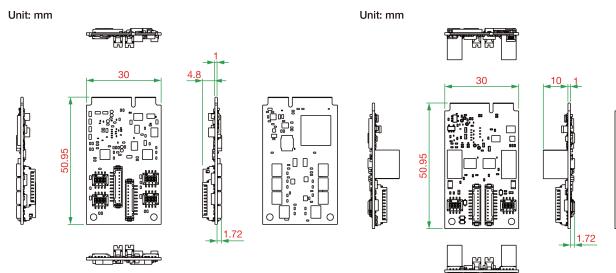
### Warranty

| Warranty Period  | 5 years   |  |
|------------------|---|--|
| Details          | See www.moxa.com/warranty                           |  |
| Package Contents |   |  |
| Device           | 1 x CP-132N Series serial board                     |  |
| Cable            | 2 x 10-pin female to 1 DB9 male serial cable, 25 cm |  |
| Installation Kit | Door/CP-100N Port12                                 |  |
| Documentation    | 1 x quick installation guide<br>1 x warranty card   |  |

CP-132N-I-T

# **Dimensions**

# CP-132N-T



# **Ordering Information**

| Model Name  | Serial Standards | No. of Serial Ports | Serial Isolation Protection |
|-------------|------------------|---------------------|-----------------------------|
| CP-132N-T   | RS-422/485       | 2                   | -                           |
| CP-132N-I-T | RS-422/485       | 2                   | 2.5 kV                      |

# Accessories (sold separately)

| Connectors           |  |
|----------------------|--|
| Mini DB9F-to-TB      | DB9 female to terminal block connector   |
| Cables               |  |
| CBL-M9HSF1x10H-15-01 | 10-pin female to 1 DB9 male serial cable, 15 cm<br>Applicable Models:<br>CP-132N-I-T |
| CBL-M9HSF1x10H-15-02 | 10-pin female to 1 DB9 male serial cable, 15 cm<br>Applicable Models:<br>CP-132N-T   |



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