CP-112N Series

2-port RS-232/422/485 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

Certifications

Introduction

The CP-112N is a Mini PCI Express multiport serial board designed for various applications such as industrial automation systems and for industrial PC manufacturers. The CP-112N is compatible with most Mini PCI Express slots. The board requires only a 3.3 VDC power supply, which means it can work with host computers ranging from DIN-rail PCs to standard-sized PCs.

The CP-112N is a top choice of industrial automation engineers and system integrators and supports Windows and Linux operating systems. In addition, the two RS-232/422/485 serial ports support a fast 921.6 kbps baudrate. The CP-112N provides full-modem control signals to ensure compatibility with a wide range of serial peripherals. The board also provides 1 kV line-to-line surge protection, ensuring compatibility in a wide range of industrial environments.

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 Moxa IPC expansion slots.

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 Even Odd

	Space Mark
Flow Control	None RTS/CTS XON/XOFF
Serial Standards	RS-232/422/485 (software-selectable)

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

Serial Software Features

Windows Drivers	Windows 11, 10, 8.1, 8, 7, 2008, Vista, 2003, XP Windows Server 2022, 2019 (64-bit), 2016, 2012 R2, 2012, 2008 R2 Windows Embedded CE 6.0 and 5.0, Windows XP Embedded
Linux Drivers	Linux kernel 5.x Linux kernel 4.x

Power Parameters

Input Current	536 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
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	3,524,230 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

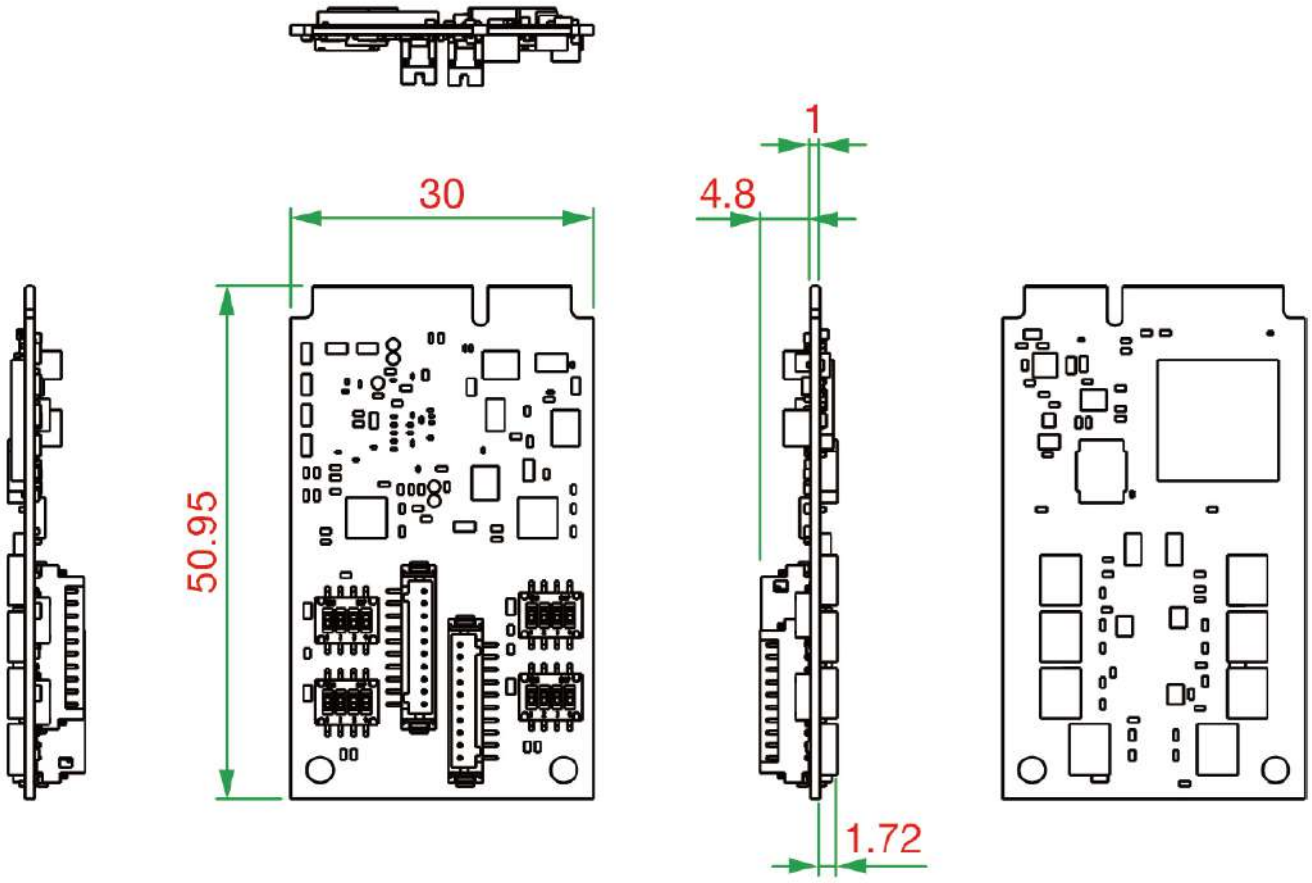
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x CP-112N 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 1 x warranty card

Dimensions

Unit: mm



Ordering Information

Model Name	Serial Standards	No. of Serial Ports	Serial Isolation Protection
CP-112N-T	RS-232/422/485	2	–

Accessories (sold separately)

Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector

Cables

CBL-M9HSF1x10H-15-02	10-pin female to 1 DB9 male serial cable, 15 cm

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