CP-104EL-A Series

4-port RS-232 PCI Express serial boards

Features and Benefits

- PCI Express 1.0 compliant

- 921.6 kbps maximum baudrate for fast data transmission

- 128-byte FIFO and on-chip H/W, S/W flow control

- Low-profile form factor fits small-sized PCs

- Drivers provided for a broad selection of operating systems, including Windows, Linux, and UNIX

- Easy maintenance with built-in LEDs and management software

Certifications

Introduction

The CP-104EL-A is a smart, 4-port PCI Express board designed for POS and ATM applications. It is a top choice of industrial automation engineers and system integrators, and supports many different operating systems, including Windows, Linux, and even UNIX. In addition, each of the board's 4 RS-232 serial ports supports a fast 921.6 kbps baudrate. The CP-104EL-A provides full modem control signals to ensure compatibility with a wide range of serial peripherals, and its PCI Express x1 classification allows it to be installed in any PCI Express slot.

Smaller Form Factor

The CP-104EL-A is a low-profile board that is compatible with any PCI Express slot. The board requires only a 3.3 VDC power supply, which means that the board fits any host computer, ranging from shoebox to standard-sized PCs.

Drivers Provided for Windows, Linux, and UNIX

Moxa continues to support a wide variety of operating systems, and the CP-104EL-A board is no exception. Reliable Windows and Linux/UNIX drivers are provided for all Moxa boards, and other operating systems, such as WEPOS, are also supported for embedded integration.

Specifications

Serial Interface

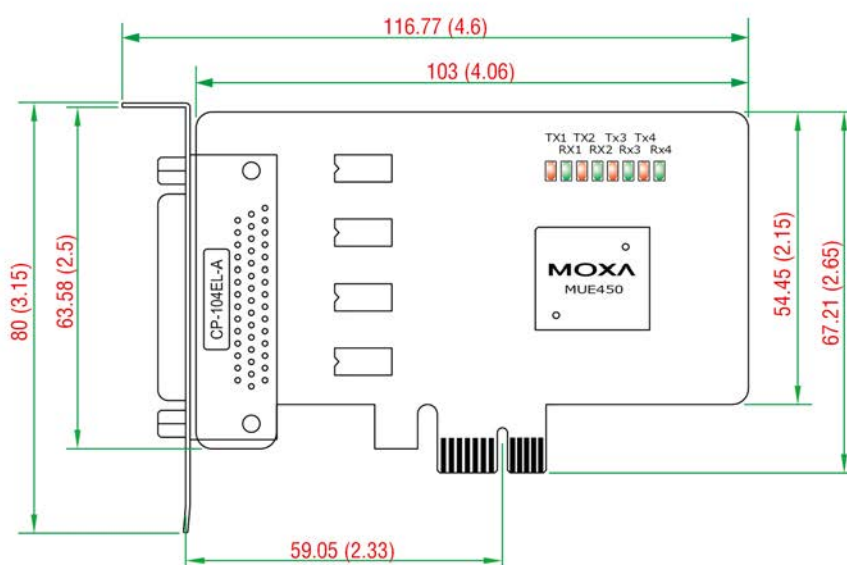|	
Comm. Controller	16C550C compatible
Bus	PCI Express 1.0
Connector	DB44 female
FIFO	128 bytes
Max. No. of Boards per PC	8
No. of Ports	4
Serial Standards	RS-232
Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2

Parity	None, Even, Odd, Space, Mark
Flow Control	None, RTS/CTS, XON/XOFF

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Serial Software Features

Linux Drivers	Linux kernel 2.4.x, Linux kernel 2.6.x, Linux kernel 3.x
Windows Drivers	DOS, Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded
UNIX Drivers	QNX 6, Solaris 10, UnixWare 7, SCO OpenServer 5, SCO OpenServer 6

Power Parameters

Input Current	805 mA @ 3.3 VDC

Physical Characteristics

Dimensions	67.21 x 103 mm (2.65 x 4.06 in)

LED Interface

LED Indicators	Built-in Tx, Rx LEDs for each port

Environmental Limits

Operating Temperature	0 to 55°C (32 to 131°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 55032/24
EMI	CISPR 32, FCC Part 15B Class B
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 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	3,601,447 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

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

Package Contents

Device	1 x CP-104EL-A Series serial board
Cable	1 x M44 to 4 x DB9-M cable, 50 cm (CP-104EL-A-DB9M) 1 x M44 to 4 x DB25-M cable, 50 cm (CP-104EL-A-DB25M)
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)

Ordering Information

Model Name	Serial Standards	No. of Serial Ports	Included Cable
CP-104EL-A-DB25M	RS-232	4	CBL-M44M25x4-50
CP-104EL-A-DB9M	RS-232	4	CBL-M44M9x4-50

Accessories (sold separately)

Brackets

1490000001000	Bracket for DB44 pack

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm
CBL-M44M9x4-50	4-port DB44 male to DB9 male cable, 50 cm
CBL-M44M25x4-50	M44 to 4 x DB25 male cable, 50 cm