CAN Interface Board
Quick Installation Guide

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Technical Support Contact Information
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Overview

Moxa's new CAN (Controller Area Network) interface board solutions include boards that support the Universal PCI interface, PCI Express interface, and PC/104-Plus interface. As stand-alone CAN controllers, the CP-602U-I, CP-602E-I, and CB-602I boards are cost-effective solutions. Each active CAN interface board has two independent CAN controllers with a DB9 connector. These CAN interface boards use the NXP SJA1000 and PCA82C251 transceiver, which provides bus arbitration and error detection. In addition, all models support wide temperature and have 2 KV of isolation protection built in, making the boards suitable for harsh industrial environments.

The CAN interface board series includes the following models:

CP-602U-I: 2-port CAN interface Universal PCI board with isolation protection, 0 to 55°C operating temperature.

CP-602U-I-T: 2-port CAN interface Universal PCI board with isolation protection, -40 to 85°C operating temperature.

CP-602E-I: 2-port CAN interface PCI Express board with isolation protection, 0 to 55°C operating temperature.

CP-602E-I-T: 2-port CAN interface PCI Express board with isolation protection, -40 to 85°C operating temperature.

CB-602I: 2-port CAN interface PC/104-Plus module with isolation protection, 0 to 55°C operating temperature.

CB-602I-T: 2-port CAN interface PC/104-Plus module with isolation protection, -40 to 85°C operating temperature.

Package Checklist

The following items are included in your CAN interface board package:

- CP-602U-I: Universal PCI Board with standard bracket, or
  CB-602I: PC/104-Plus Module, or
  CP-602E-I: PCI Express Board with standard bracket
- Quick installation guide (printed)
- Warranty card

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

Software Installation Procedure

This section explains basic installation procedures, using Windows XP installation as an illustration.

Initial Driver Installation

Step 1: Run **driv_win2k_can_x.x_build_ yymmddhh.exe**. Click Next to begin installing the driver. (*Note: x.x = version, yy = year, mm = month, dd = day, hh = hour)

Step 2: Click **Next** to install the driver in the indicated folder.

Step 3: Click **Install** to proceed with the installation.

Step 4: Moxa has thoroughly tested the driver for safe Windows operation. Click **Finish** to complete the driver installation.

After installation, the Start menu will contain the Moxa CAN interface board Windows driver folder. The driver folder includes Examples, Library Programming Guide, Library Reference, and Utility. This content simplifies program development for users.

Connecting the Hardware

After installing the driver, power off the PC, plug the Moxa CAN interface board into any empty slot, and then power it on. Windows will automatically detect the board and begin installing the driver. When Windows finishes installing the driver for the board, it will detect the next CAN controller and will install another driver for the additional CAN controller.

Windows XP, Windows 2003, and Windows Vista (32-bit and 64-bit)

The following instructions are for Windows XP, Windows 2003, and Windows Vista systems.

Step 1: After plugging the CAN interface board into a slot, Windows will automatically detect the new device. The **Found New Hardware** balloon will appear in the bottom right corner of the Windows desktop, but no action is required.

Step 2: After a moment, the Found New Hardware Wizard will open. Select **No, not this time**, and then click **Next**.

Step 3: Select **Install the software automatically (Recommended)**, then click **Next**.

Step 4: Windows will spend a few moments installing the CAN interface driver.

Step 5: The next window indicates that Windows has completed the installation. Click **Finish** to continue with the installation procedure.

Step 6: After Windows has completed installing the Moxa CAN interface board, it will automatically detect the new CAN controller.

Installing the Driver for the CAN controller

After the driver for the CAN interface board has been installed, Windows will automatically detect the new CAN controller.

Step 1: The **Found New Hardware Wizard** window will open to help you install the driver. This window will offer to connect to the Windows update site to search for a driver. Select **No, not at this time** and then click **Next** to continue.

Step 2: Select **Install the software automatically (Recommended)**, and then click **Next** to continue.

Step 3: Windows will spend a few moments installing the CAN controller driver.

Step 4: After all files have been copied to the system, the **Completing the Found New Hardware Wizard** window will open to indicate that it has finished installing the driver. Click **Finish** to proceed with the rest of the installation.

Step 5: Repeat Steps 1 through 4 for each of the remaining controllers.

Step 6: The **Found New Hardware** balloon will reappear to inform you that the hardware was installed successfully.

Specifications

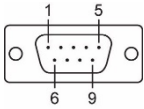
Hardware	
CAN Controller	NXP SJA1000
CAN Transceiver	PCA82C251
CAN Specification	CAN 2.0 A/B
Signal Support	CAN_H, CAN_L, GND
Board Interface	CP-602U-I: Universal PCI CB-602I: PC/104-Plus bus module CP602E-I: PCI Express x 1
Connectors	CP-602U-I/CP-602E-I: DB9 male CB-602I: 20-pin box header
Ports	2
Transfer rate	1 Mbps
Termination Resistor	120 ohms (selected by jumper)
Max. Module Support	4 pcs
Optical Isolation	2 KV
Software	
Operating Systems and Library	Refer to the product website or datasheet for details
Physical Characteristics	
Dimensions	CP-602U-I: 120 x 80 mm (4.72 x 3.15 in) CB-602I: 90 x 96 mm (3.54 x 3.78 in) CP-602E-I: 120 x 80 mm (4.72 x 3.15 in)
Environment Limits	
Humidity (Operating)	5 to 95% RH

Operating Temperature	
Standard Models	0 to 55°C (32 to 131°F)
Wide Temp. Models	-40 to 85°C (-40 to 185°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Regulatory Approvals	EN61000-3-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11, FCC Part 15 Class B
Power Requirements	
Power Consumption	CP-602U-I: 365 mA @ 5 VDC CB-602I: 380 mA @ 5 VDC CP-602E-I: 780 mA @ 5 VDC
Warranty	
Warranty period	5 years
Details	See www.moxa.com/warranty

Pin Assignments

DB9 Male Pinouts

Pin	Signal
2	CAN_L
3	CAN_GND
5	Shield
7	CAN_H



20-pin Box Header Pinouts

Pin	Signal
3	CAN0_L
4	CAN0_H
5	CAN_GND
9	Shield
13	CAN1_L
14	CAN1_H
15	CAN_GND
19	Shield