JNMM-4LP-XT Driver
Installer Instructions for Windows

Revision A.3 Jan 2017

Revision	Date	Comment
A.0	09/1/2016	Initial release
A.1	11/22/2016	Windows : Update for RW function for PCI mode, Update for PTB/STB method and error handling.
A.2	12/07/2016	Windows : Update for RW function for PCI/ISA mode, Update for PTB/STB method and error handling.
A.3	1/2/2017	Windows : Updated GUI monitor.

FOR TECHNICAL SUPPORT PLEASE CONTACT:

support@diamondsystems.com

Diamond Systems Corporation
555 Ellis Street
Mountain View, CA 94043 USA
Tel 1-650-810-2500
Fax 1-650-810-2525
www.diamondsystems.com

CONTENTS

1. INTRODUCTION

This document describes the steps to run the JNMM-4LP-XT Driver Installation for Windows 7 OS.

2. INSTALL JNMM-4LP-XT DRIVER SOFTWARE FOR ISA MODE

- Open “cmd.exe” as an administrator mode.
- Refer the ISA IRQ Jumper (J13), where place the jumper on selected IRQ and place it on “R” pin before installing the drivers.
- For ISA mode place the jumpers on selected base address (M2-M0), DIO base address (IO9-IO5), and place the jumper in “ISA” pin (J14).
- Before installing the driver please change the IRQ value which you have configured in J13 jumper and open the “dsccan.inf” file and edit the “IRQConfig=5” to the selected IRQ value.
- Go into the install directory and run “installISA.bat”.

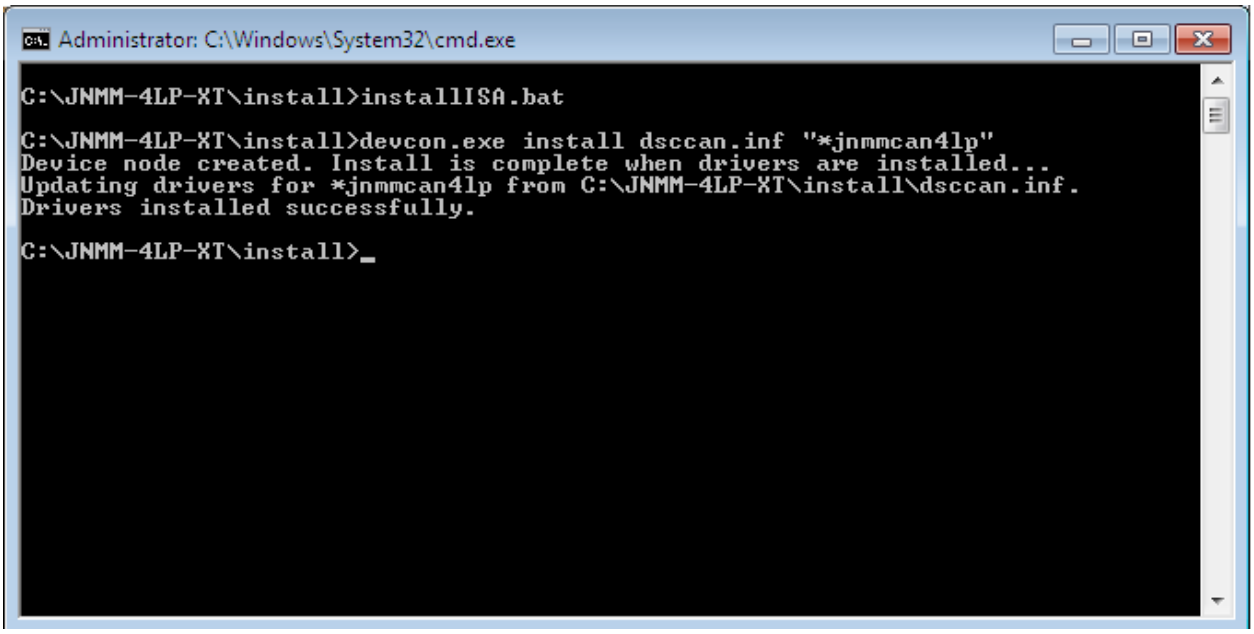


Figure 1: Diamond Systems JNMM-4LP-XT Driver Setup

- Click on “Install this driver software anyway” (shown in Figure 2) to proceed the installation process.

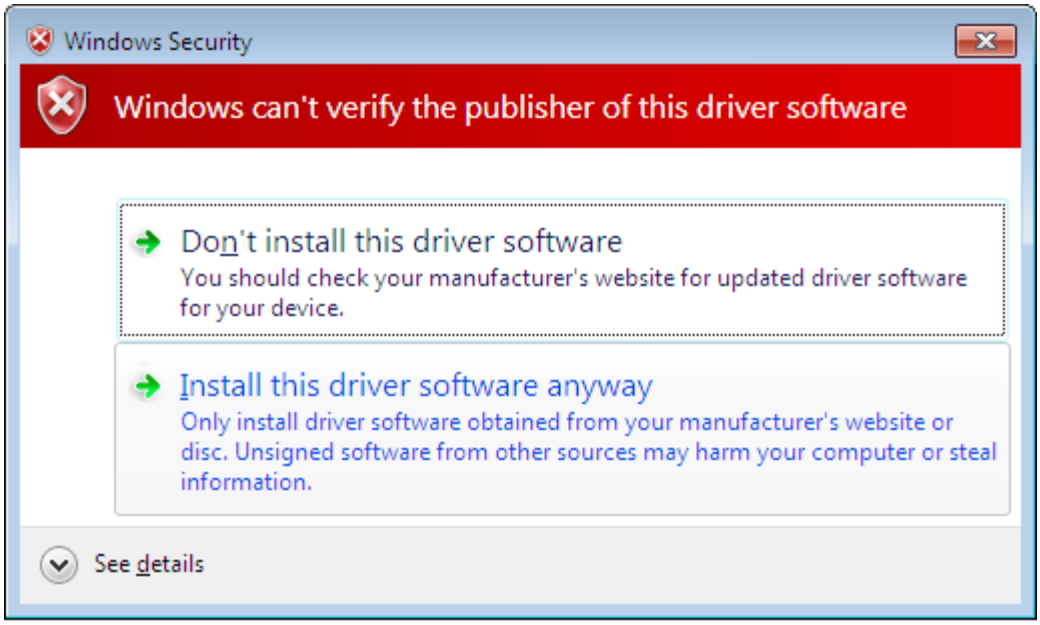


Figure 2: Diamond Systems JNMM-4LP-XT Driver Setup

- Driver has been loaded to the system and Open the “Device Manager” to check whether the driver has been loaded in the system as shown in figure 3.

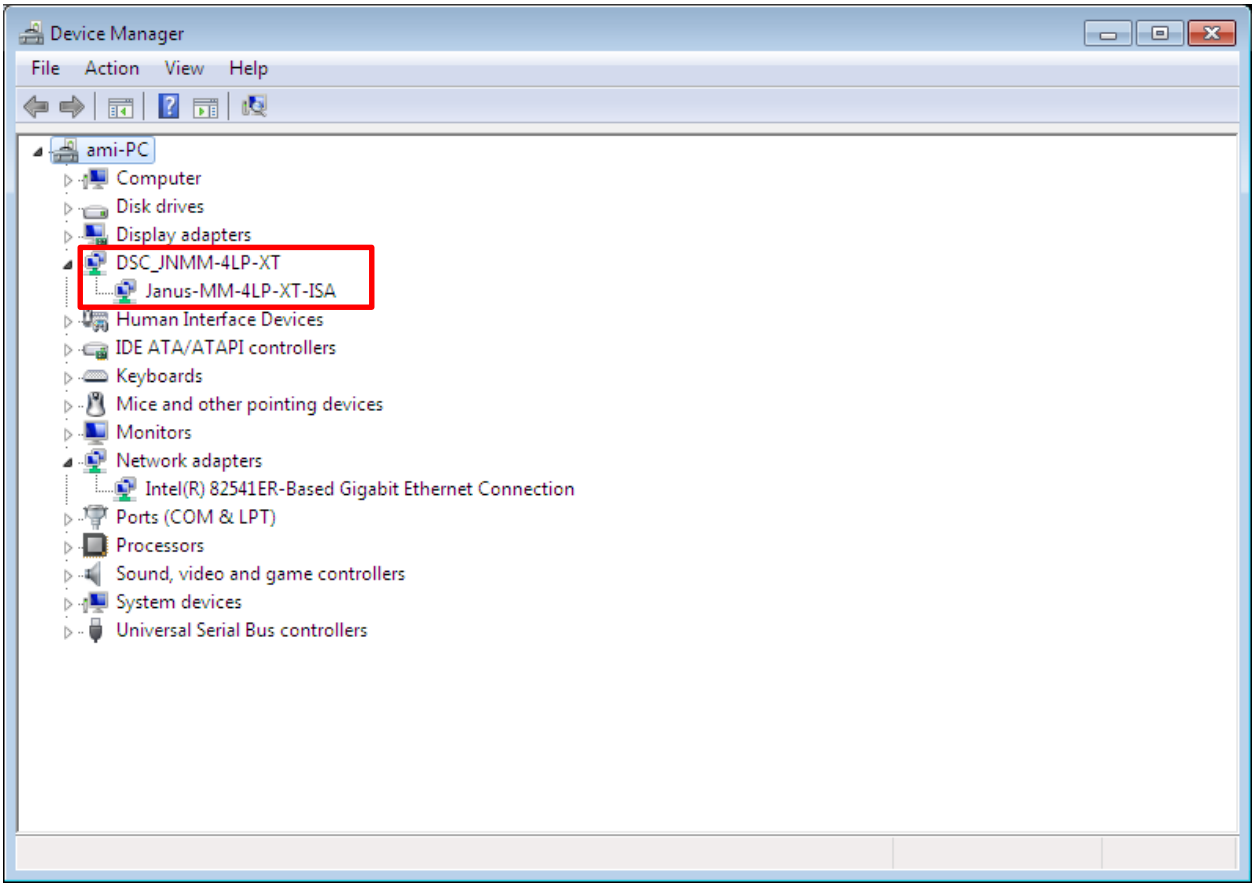


Figure 3: Device Manager

3. UNINSTALL JNMM-4LP-XT DRIVER SOFTWARE FOR ISA MODE

- To Uninstall the JNMM-4LP-XT Driver Software for ISA mode, run the “uninstallISA.bat” file.

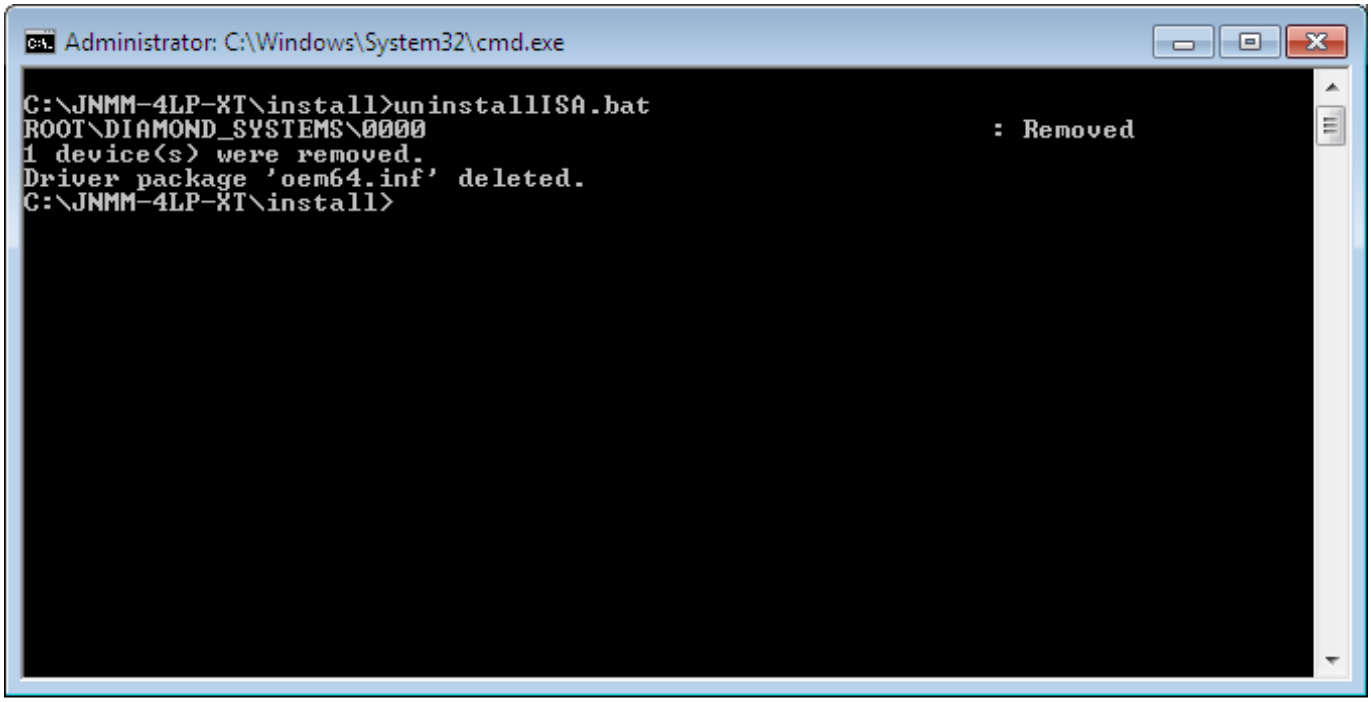


Figure 4: Diamond Systems JNMM-4LP-XT Driver Setup

- Open the device manager, whether the driver has been removed from the system or not.

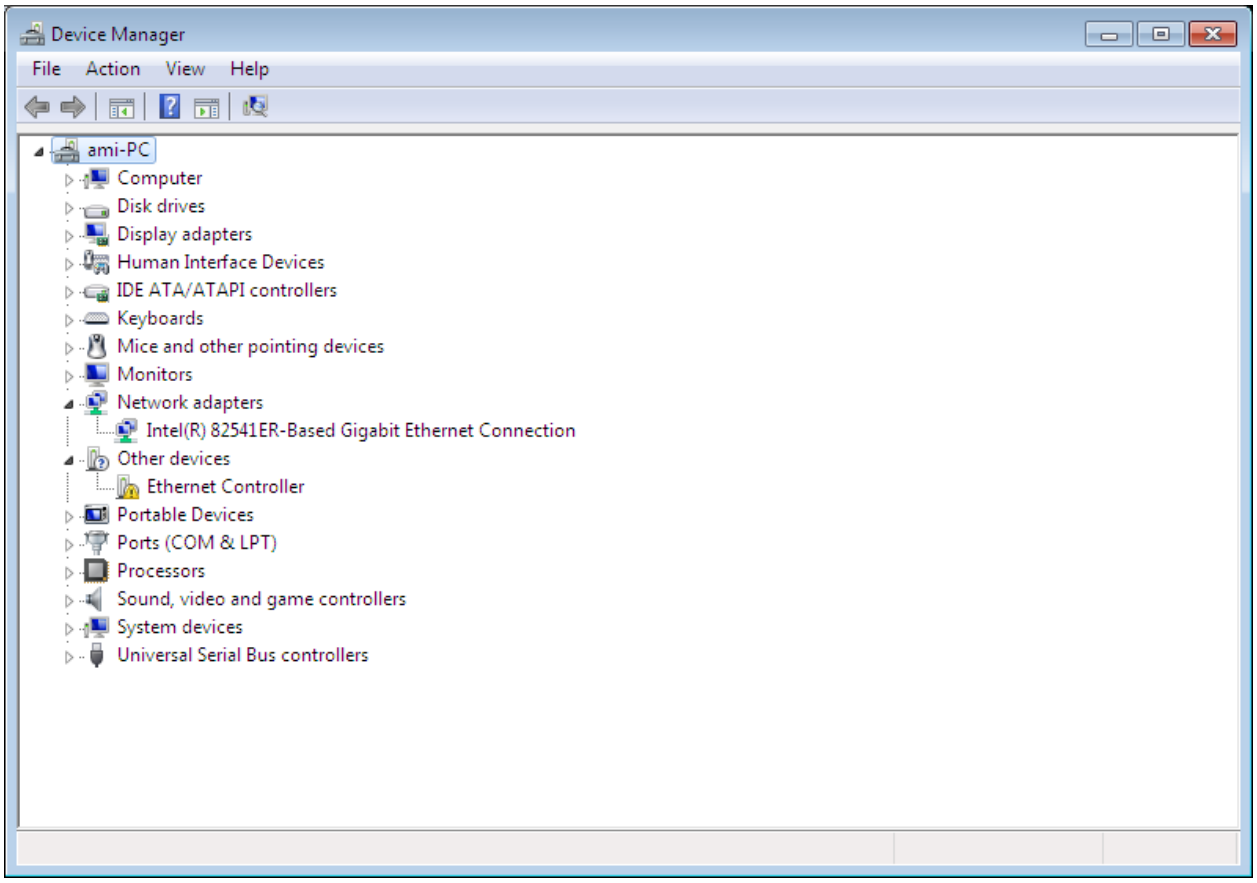


Figure 5: Diamond Systems JNMM-4LP-XT Driver Setup

4. INSTALL JNMM-4LP-XT DRIVER SOFTWARE FOR PCI MODE

- Open command prompt as an administrator mode.
- For PCI mode remove the jumper from “ISA” (J14) before installing the drivers.
- Go into the install directory and run “installPCI.bat”.

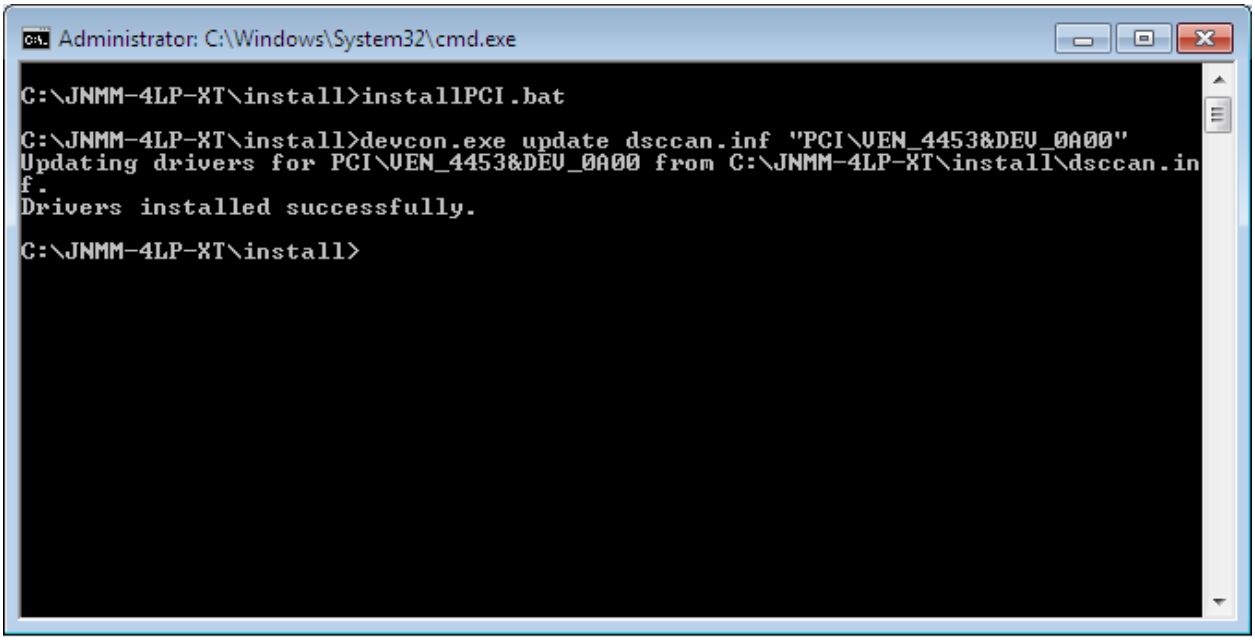


Figure 6: Diamond Systems JNMM-4LP-XT Driver Setup

- Click on “Install this driver software anyway” (shown in Figure 7) to proceed the installation process.

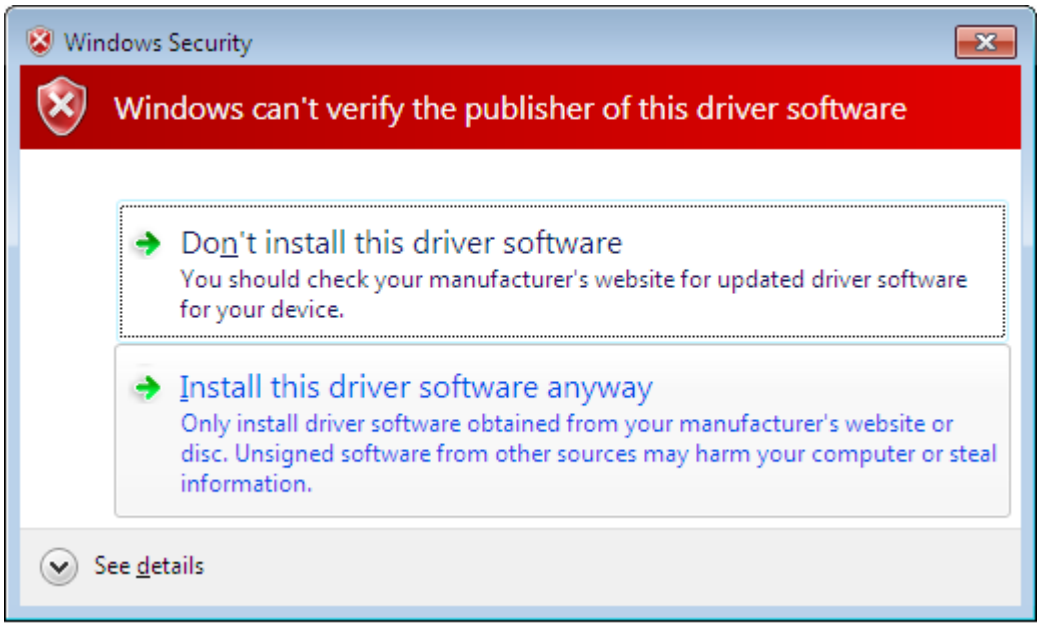


Figure 7: Diamond Systems JNMM-4LP-XT Driver Setup

- Driver has been loaded to the system and Open the “Device Manager” to check whether the driver has been loaded under the Class “DSC_JNMM-4LP-XT” as shown in Figure

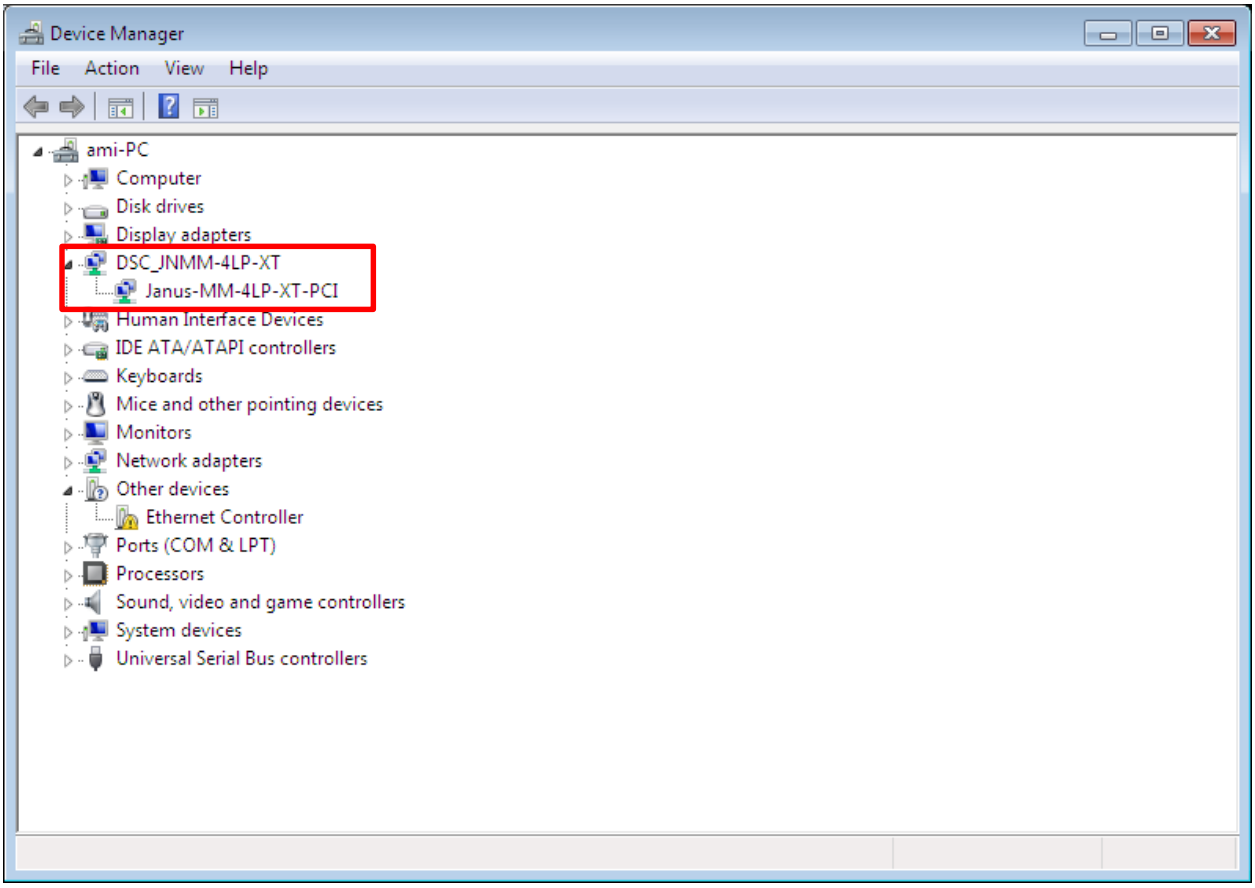


Figure 8: Device Manager

5. UNINSTALL JNMM-4LP-XT DRIVER SOFTWARE FOR PCI MODE

- To Uninstall the JNMM-4LP-XT Driver Software for PCI mode, run the “uninstallPCI.bat” file.

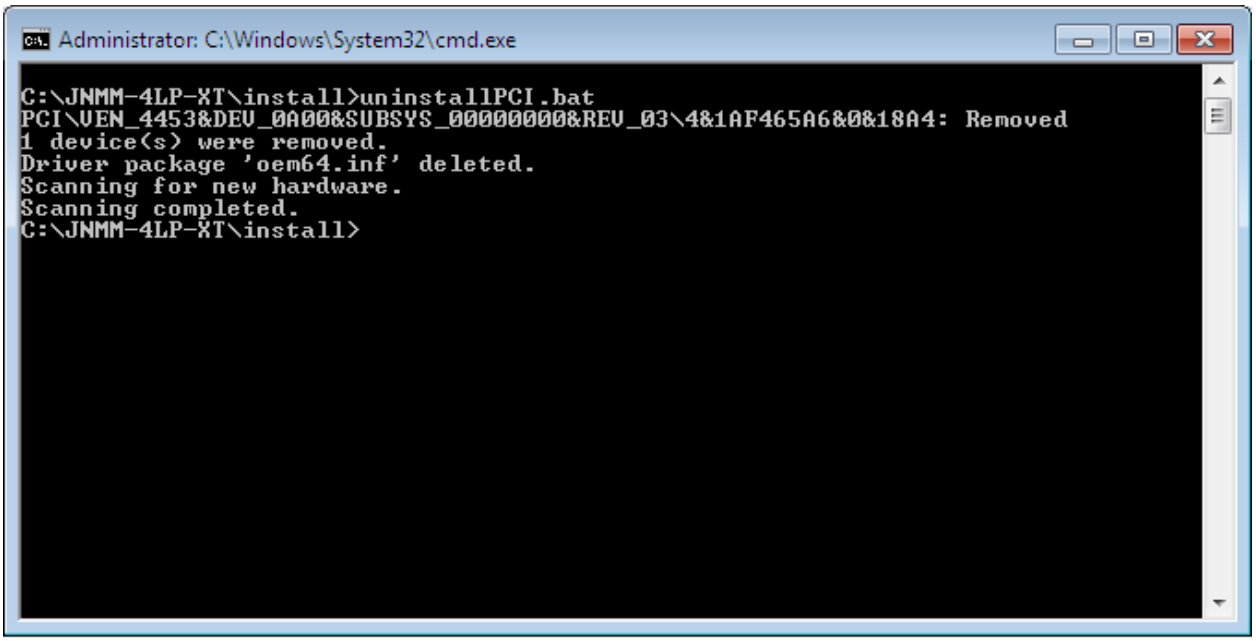


Figure9: Diamond Systems JNMM-4LP-XT Driver Setup

- Open the device manager, whether the driver has been removed from the system or not.

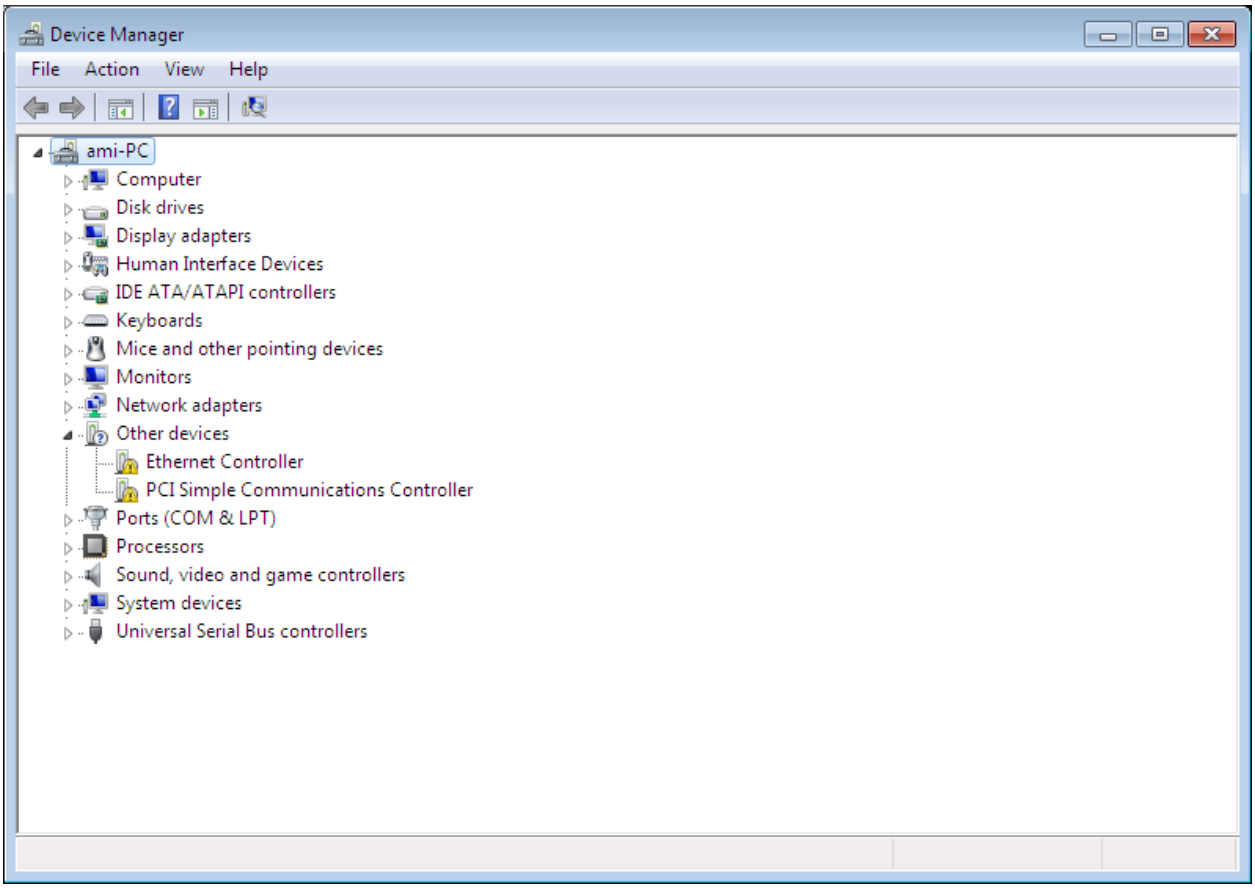
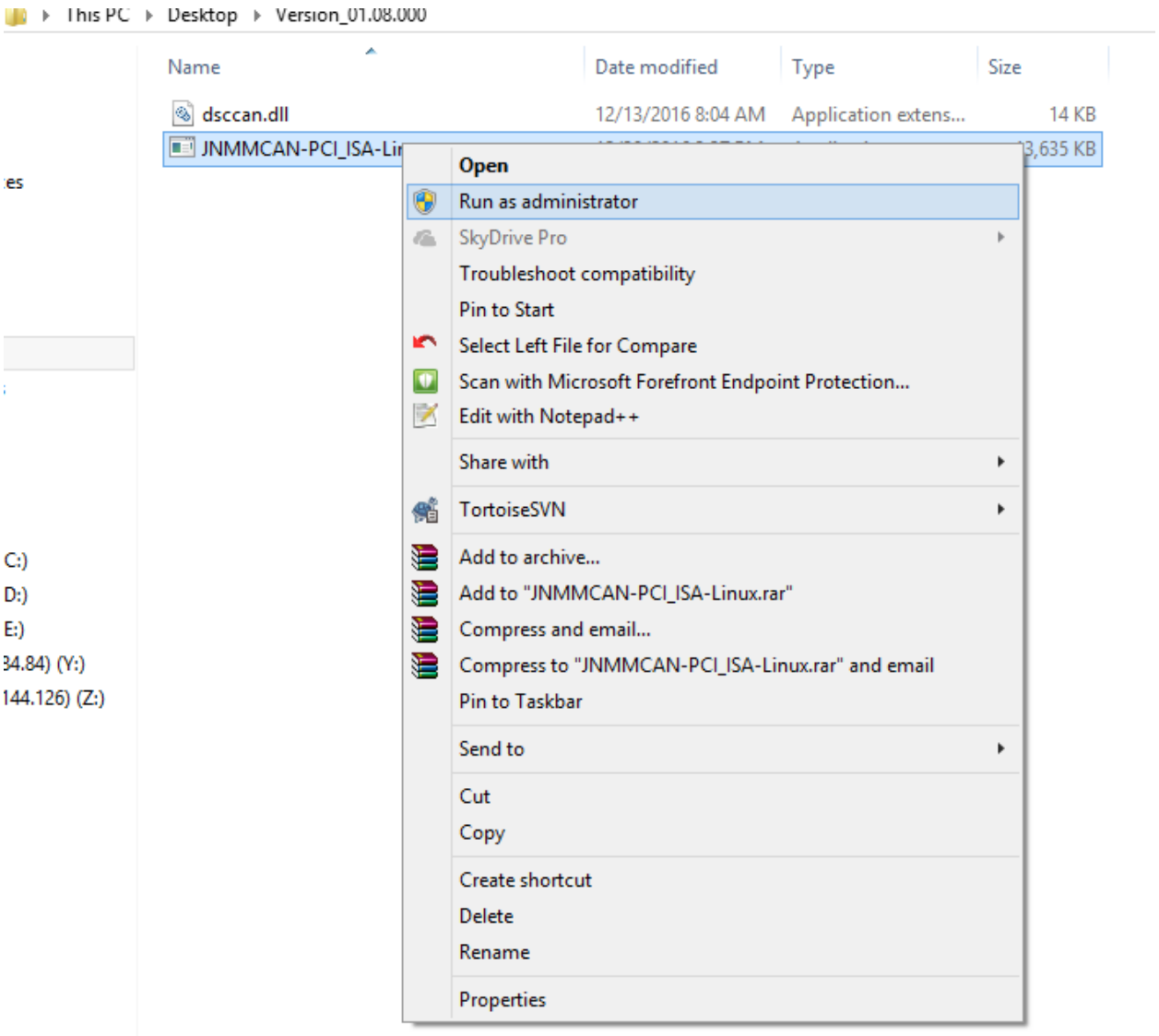


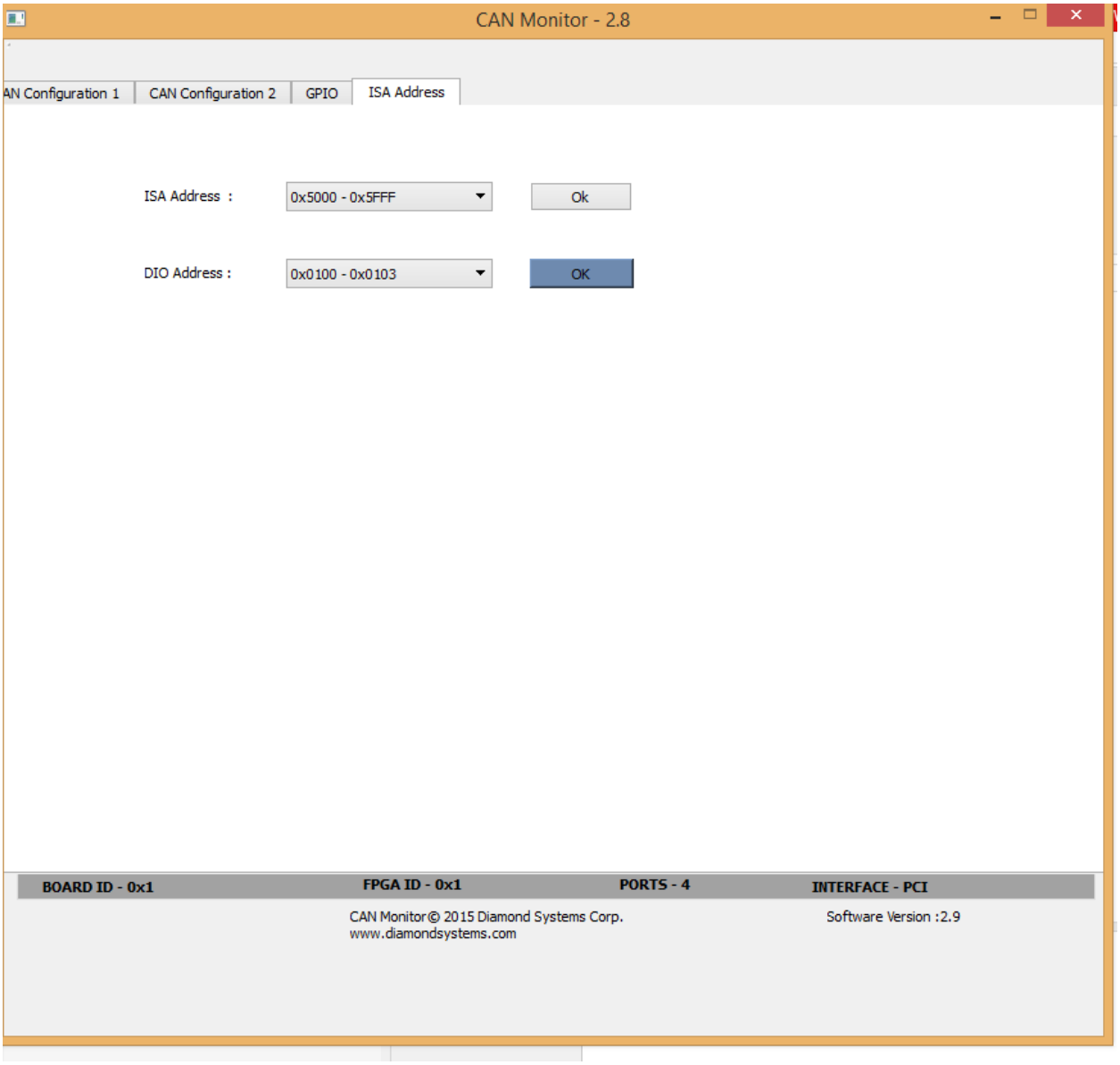
Figure 10: Device Manager

6. STARTING THE CAN MONITOR APPLICATION

- Open device manager and right click on the driver which you have installed and click on the properties. In general configuration check the device status. If it is working properly then it will display “This device is working properly”. If it is not working properly you can see error message.
- If the driver is not installed,You would need to check the base address and IRQ is available. you can check the same in device manager resource list. If the resource are used by any other device, Please use the available resources.
- Right click on DSC-CAN-PCI.exe and click on “**Run as administrator**” as shown in below screen to start the CAN Monitor application.

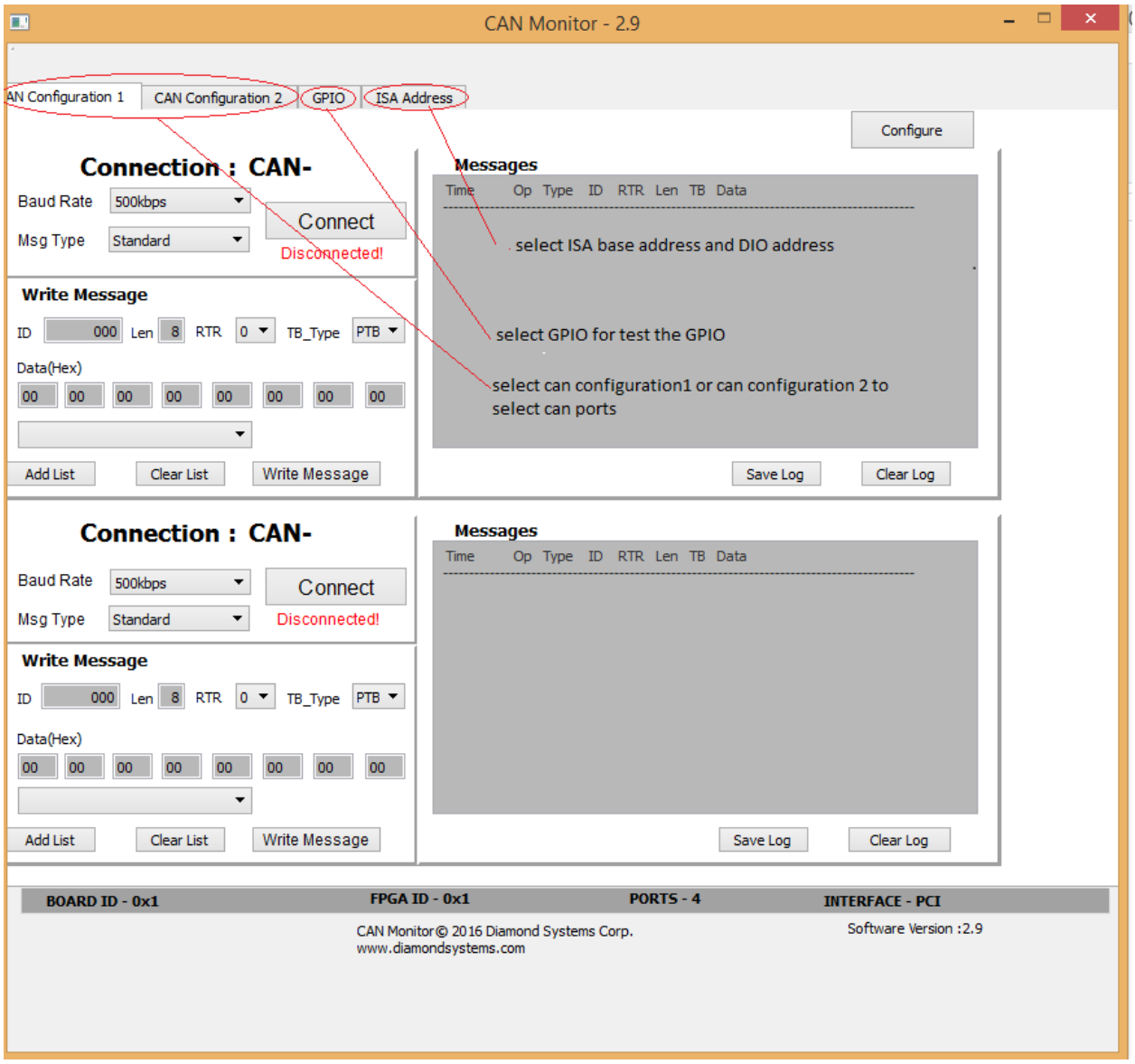


- If you are in ISA mode then first select the ISA Base address and DIO address.

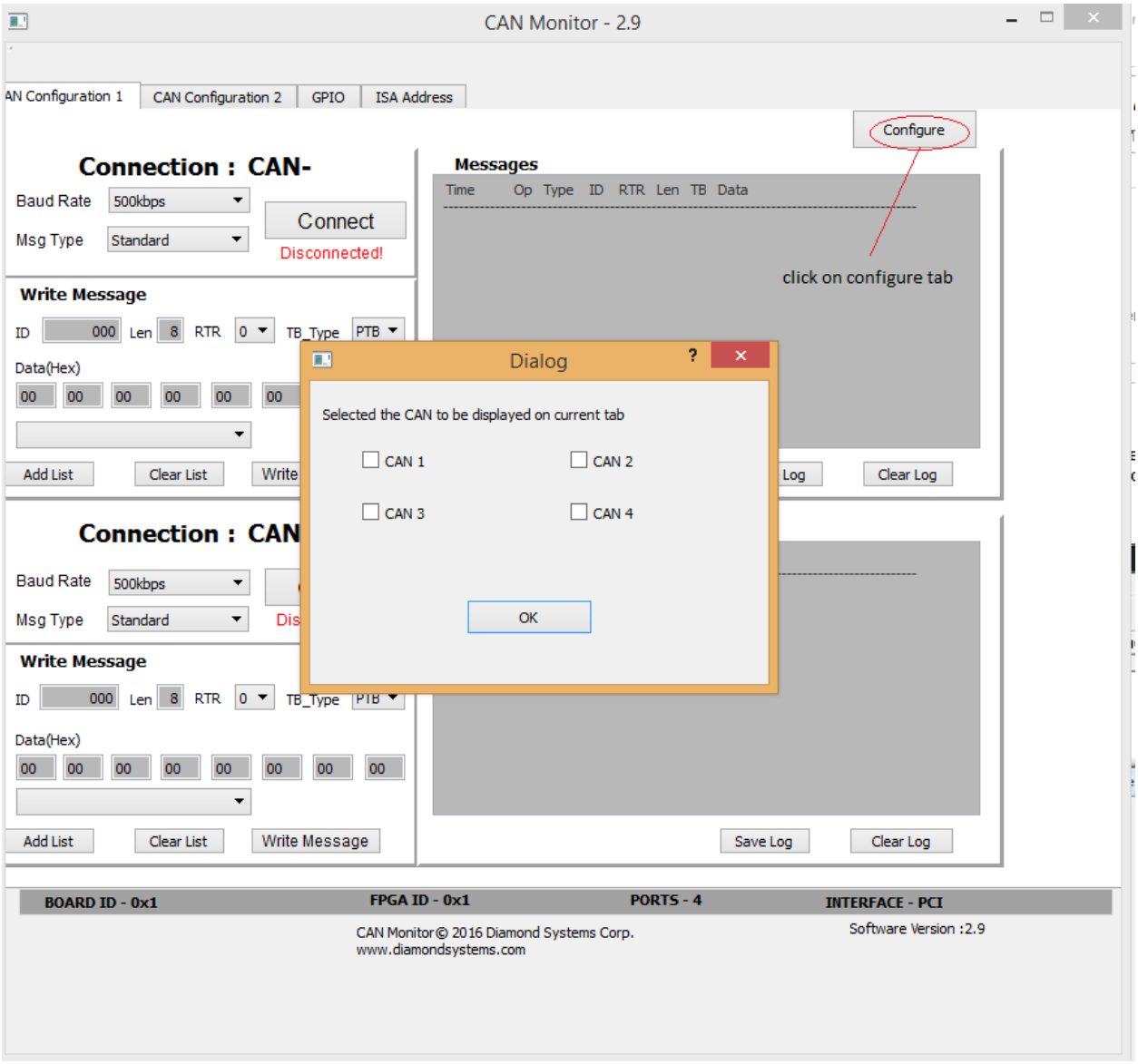


7. CONFIGURING CAN PORTS

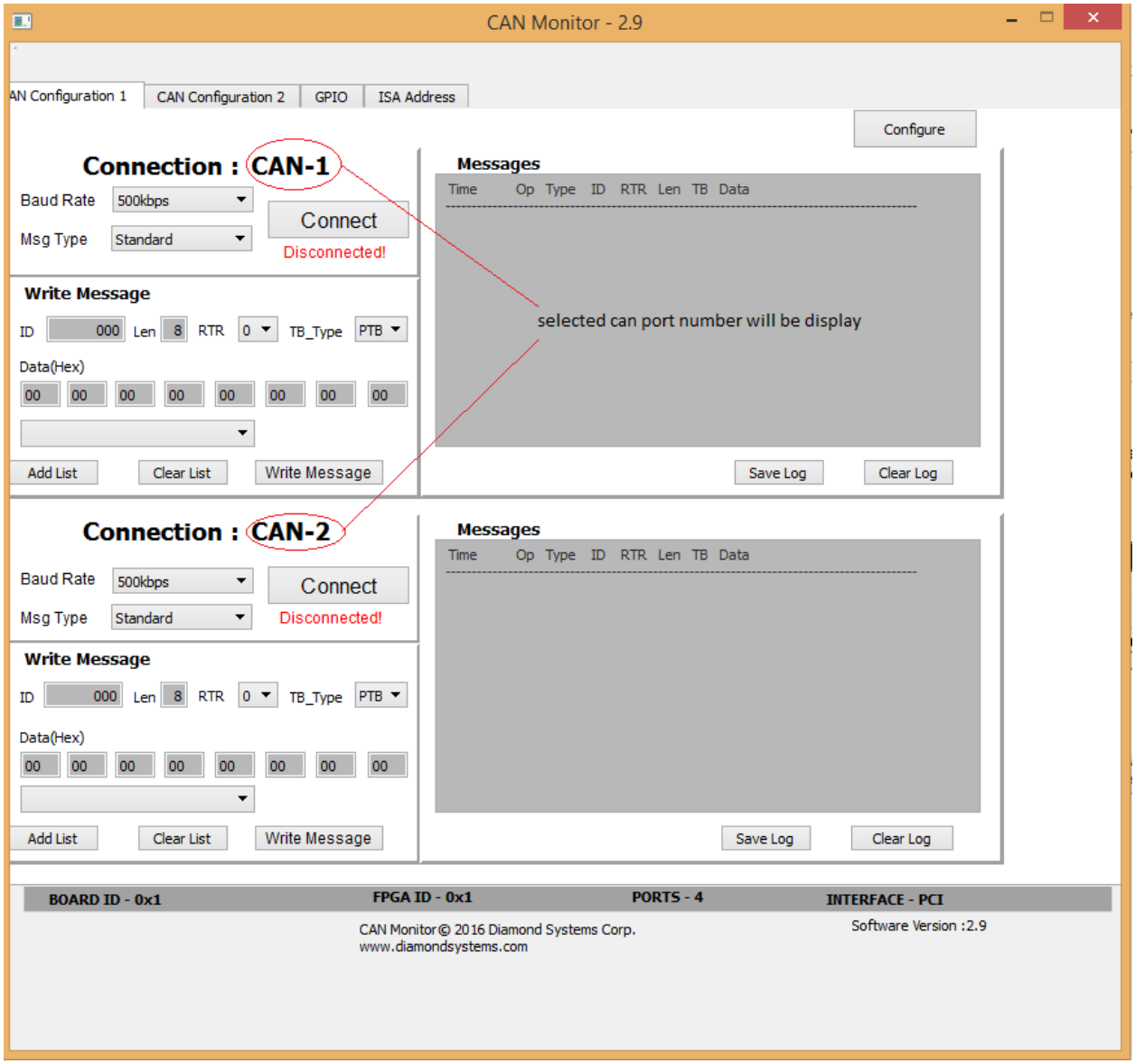
- The CAN Monitor application contains four tabs. Click on CAN Configuration 1 or 2 tab for CAN operation, or click on the GPIO tab to operate the GPIO lines, or click ISA address tab to select ISA base address and DIO address.



Each CAN tab can support any two CAN ports. To select the ports for a tab, click on the **"Configure"** button in the upper right. A pop-up window appears allowing you to select the two ports for the current tab. Any one CAN port can only be configured on one tab.

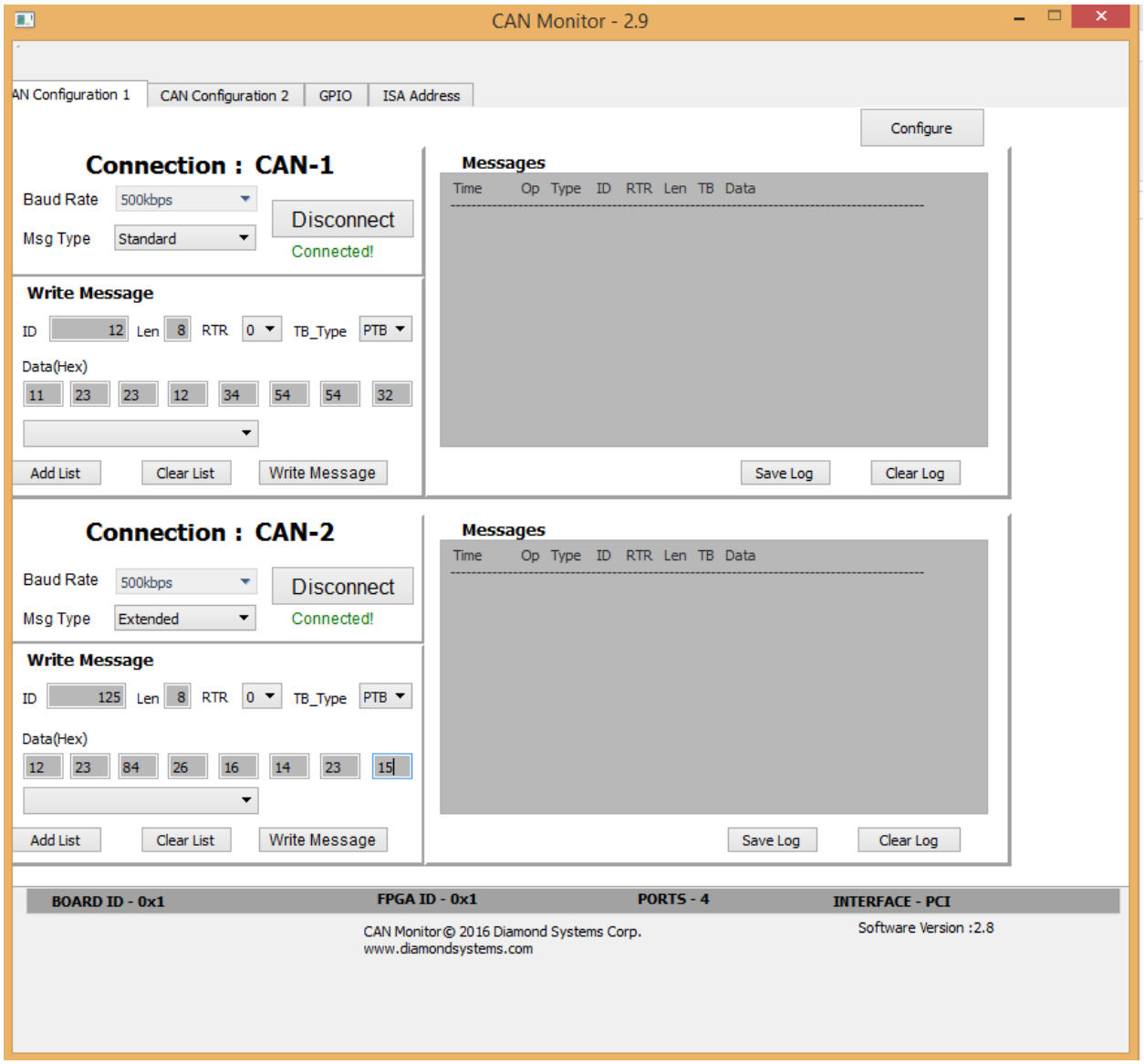


- Initially the CAN port numbers will be empty in each window on the tab. After configuring the CAN ports, the selected CAN port numbers will be displayed.



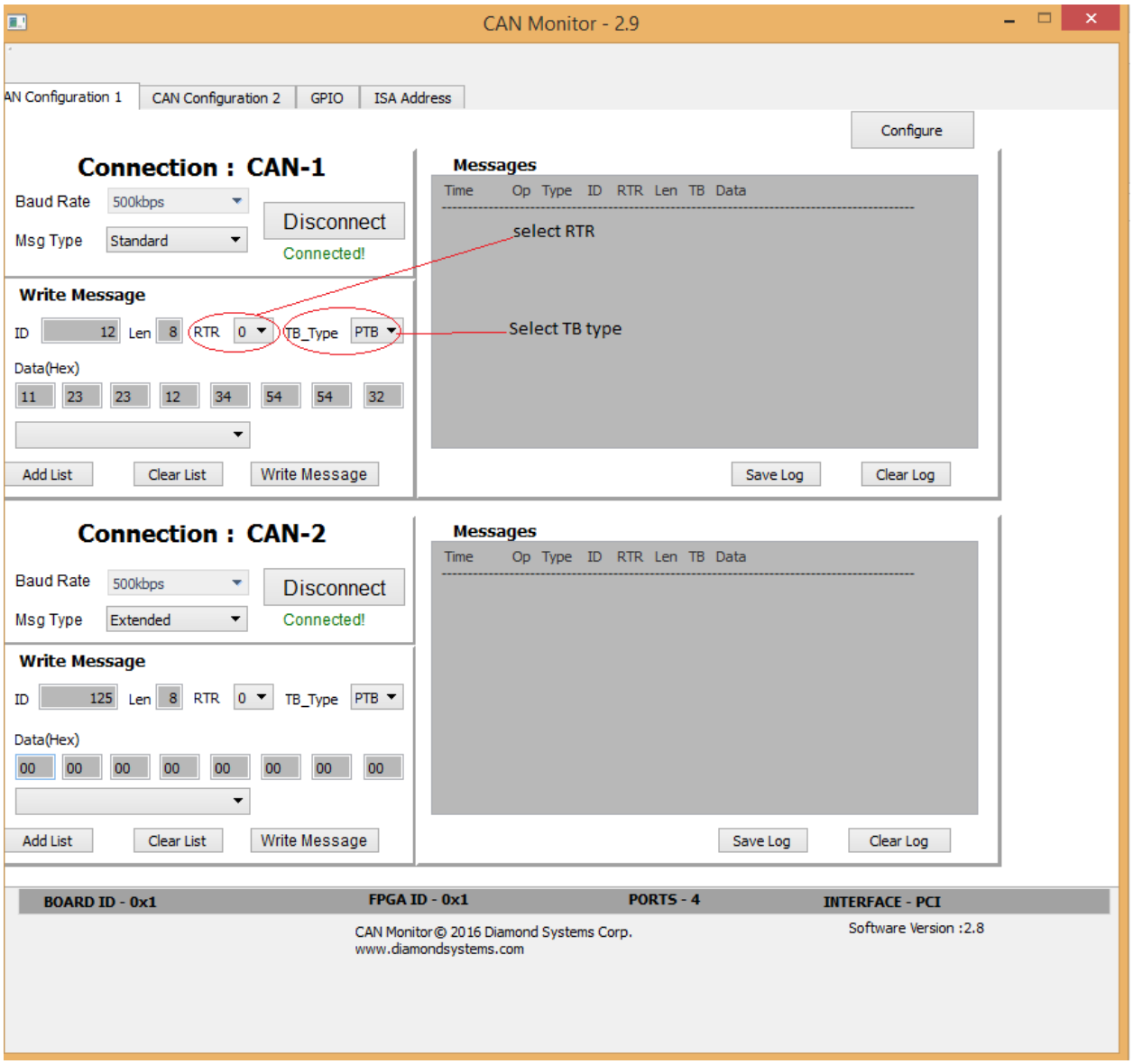
8. SETTING CAN BAUD RATE AND MESSAGE TYPE

- The baud rate for each port can be configured using the drop-down menu for the particular CAN port. In the same manner, the message type (standard or extended) can be configured. After selecting the desired settings, press the “Connect” button to configure the port. The Connect button will change to Disconnect, and the status message below will say Connected.



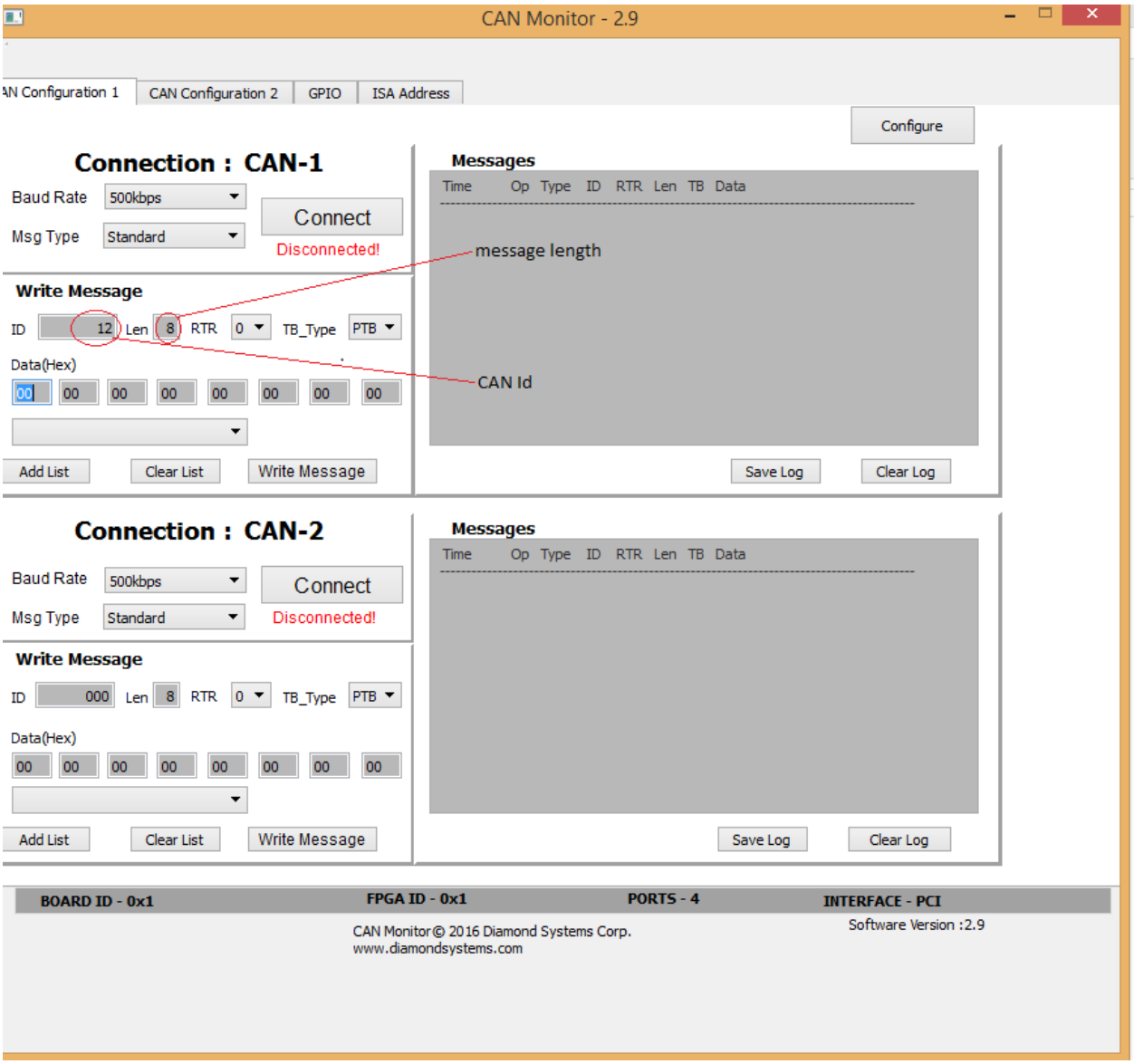
9. SETTING RTR AND TB TYPE

- Select RTR and TB type from combo box.



10. SETTING CAN ID AND MESSAGE LENGTH

- Enter the CAN ID and message length.

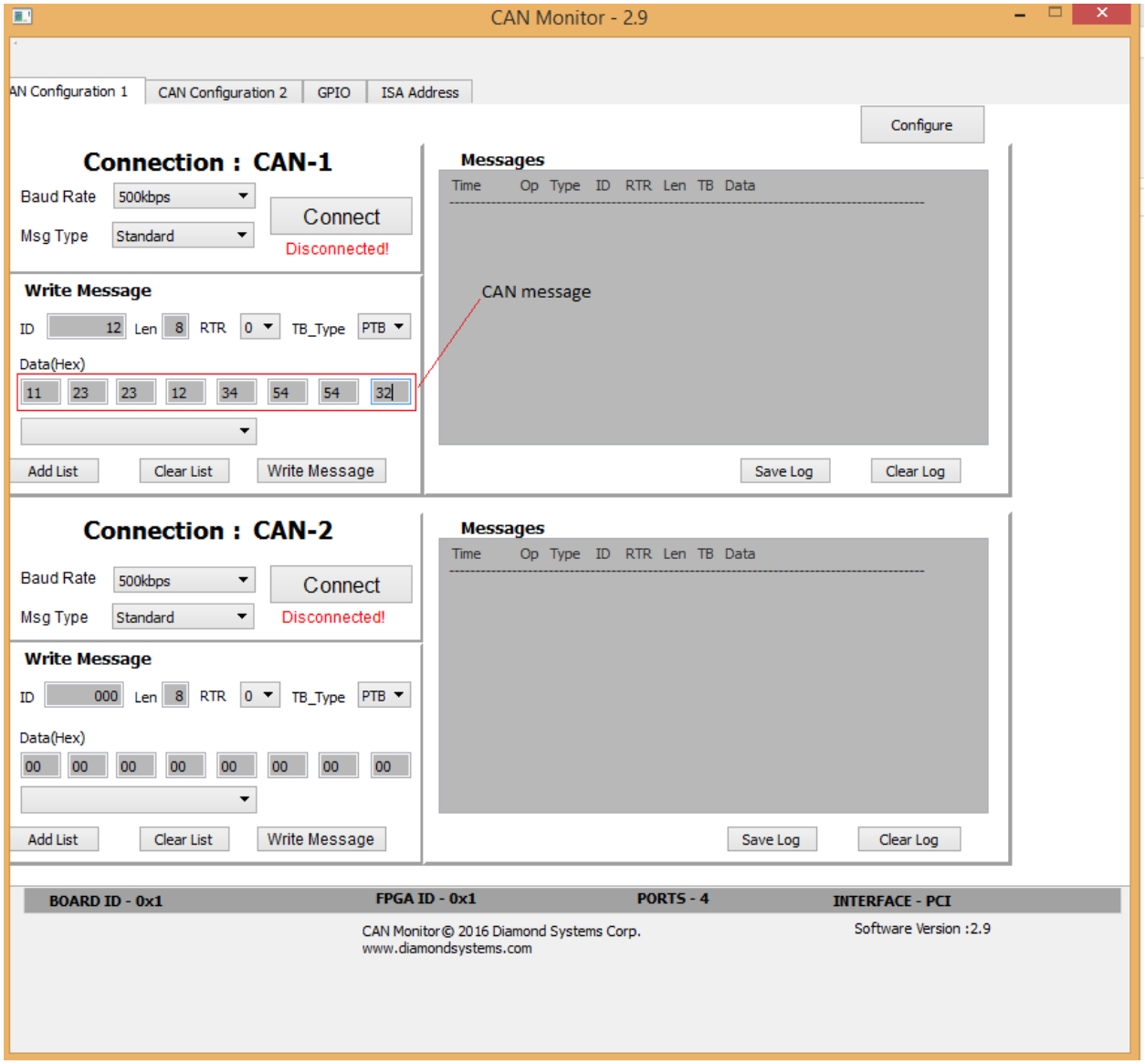


11. PREPARING CAN MESSAGE FOR TRANSMISSION

- To create a new message, enter the desired transmit data in hex values in the Data fields. Both upper and lower case alpha characters can be used. The number of bytes entered should match the selected length. In case more bytes are entered than the selected length, only the first (length) bytes entered will be transmitted. In case too few bytes are entered, the missing bytes will be filled with 00.

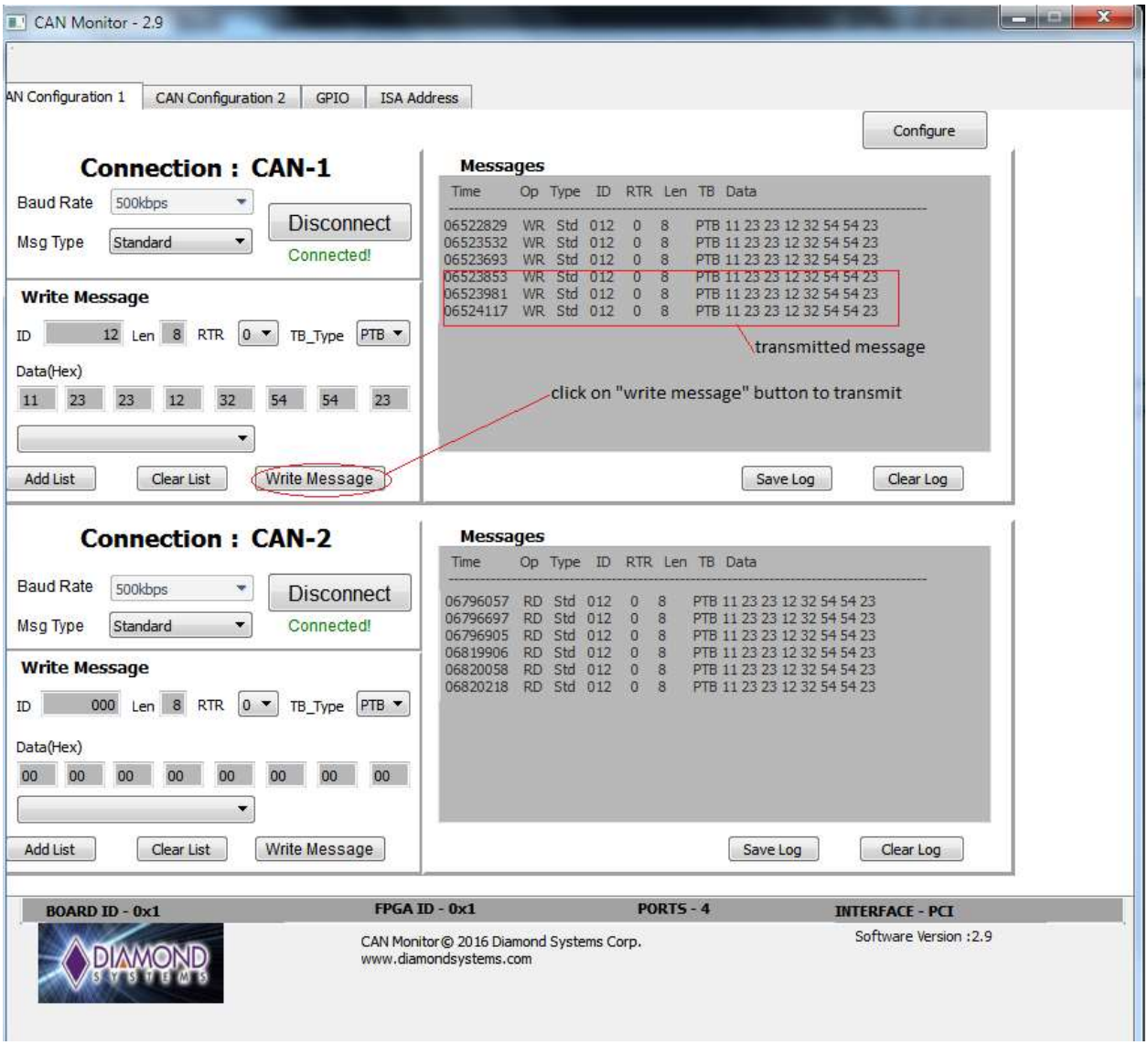
- A message can be added to the list for quick recall and reuse later. Click on the Add List button.

- To select a message from the list for retransmission, simply select it from the list. The data fields will be auto-populated with the selected message.



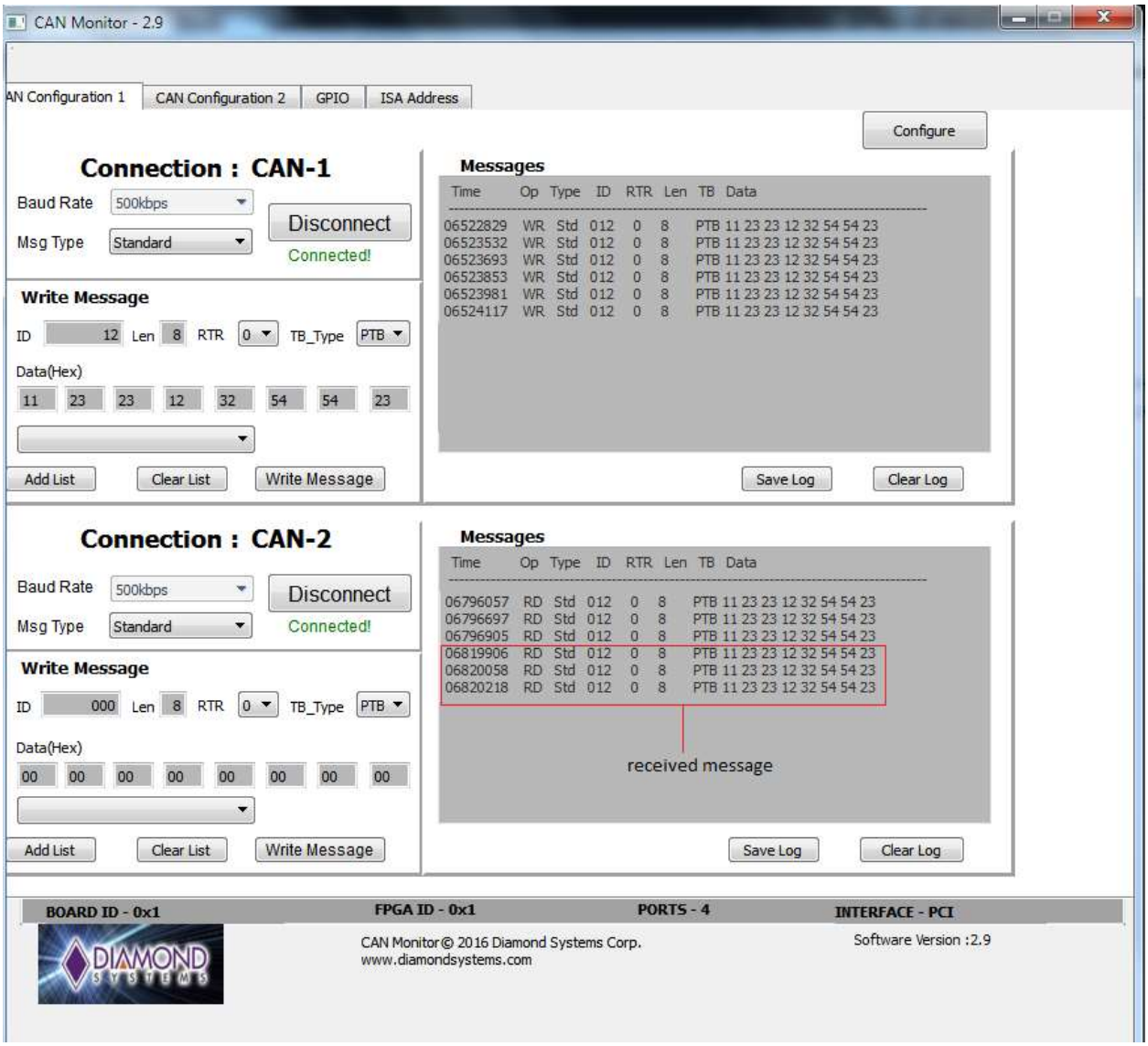
12. TRANSMITTING A CAN MESSAGE

- The configured CAN message data can be transmitted using the **"Write Message"** button. Transmitted messages will be displayed in the CAN message box for that particular CAN port. The same message can be transmitted multiple times by clicking on the write message button again.



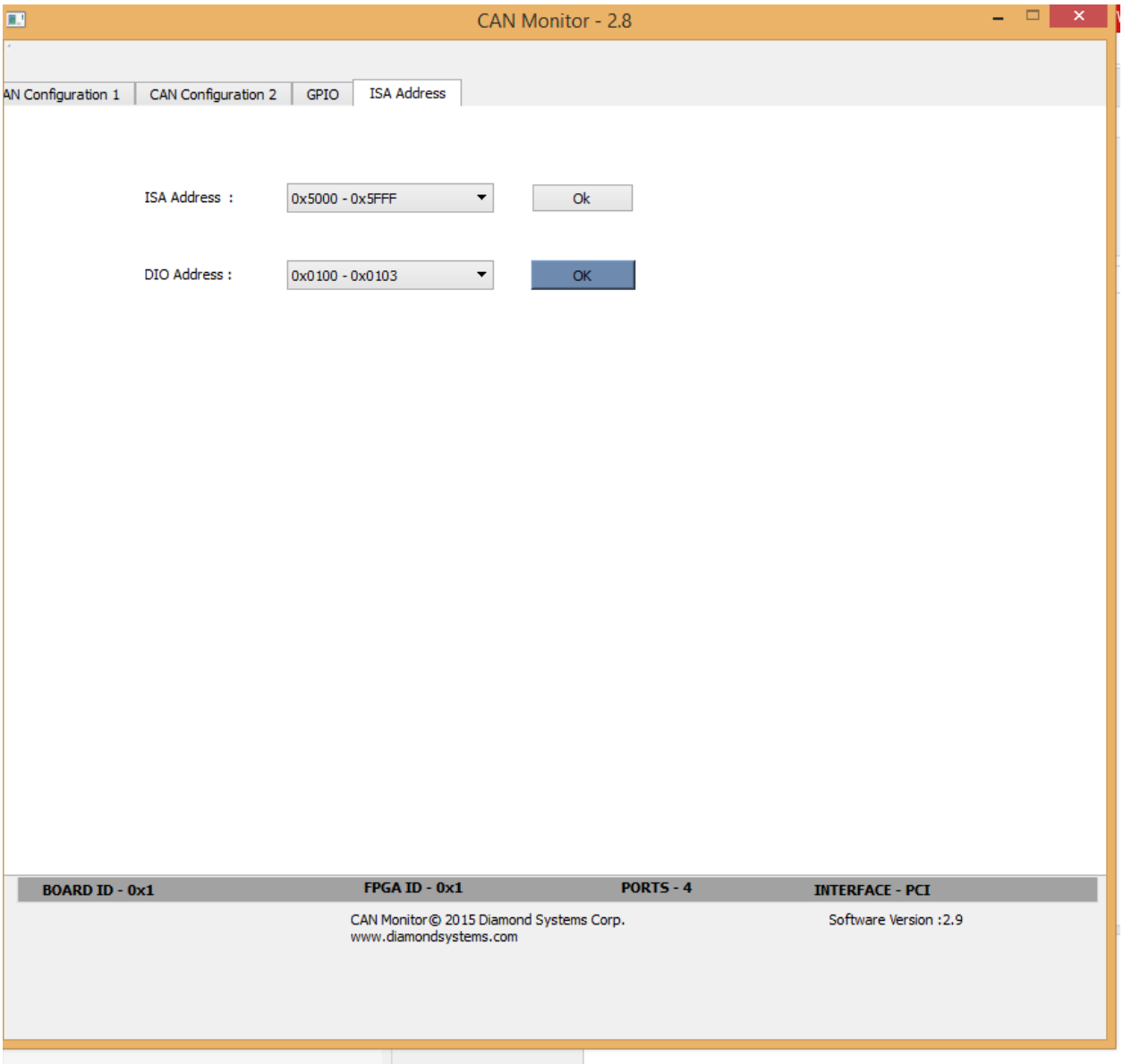
13. RECEIVING A CAN MESSAGE

- Received CAN message will be displayed automatically in the CAN message box for that particular CAN port. In the screen shot below, port 2 is connected to port 1, so the messages written on port 1 are being received and displayed for port 2.
- Make sure the receiving CAN port's baud rate is compatible with the transmitting port.

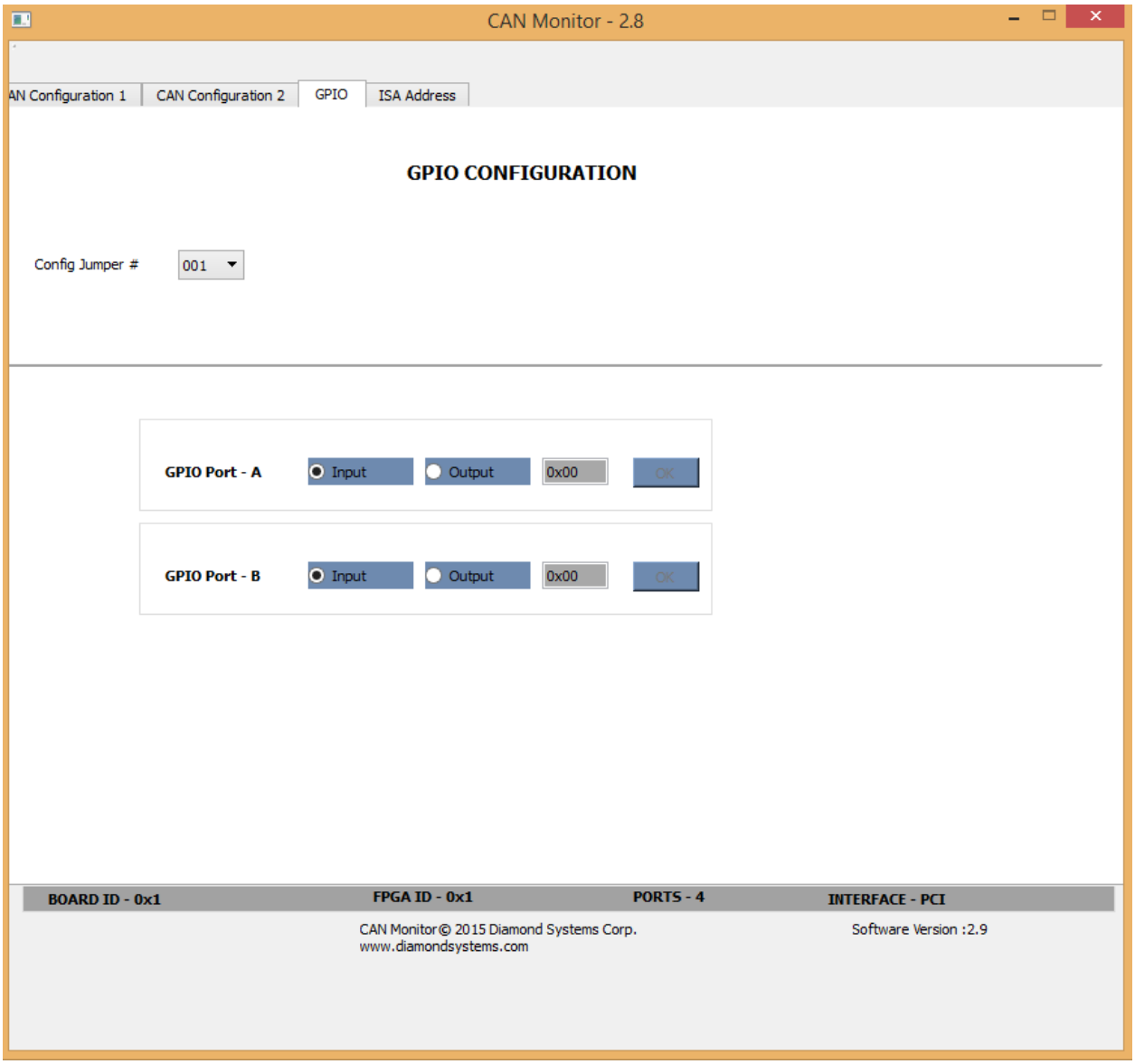


14. GPIO CONFIGURATION

- If you already set the ISA base address and DIO address then no need to set once again the base address and DIO address but it is not set then first select ISA address and DIO address.

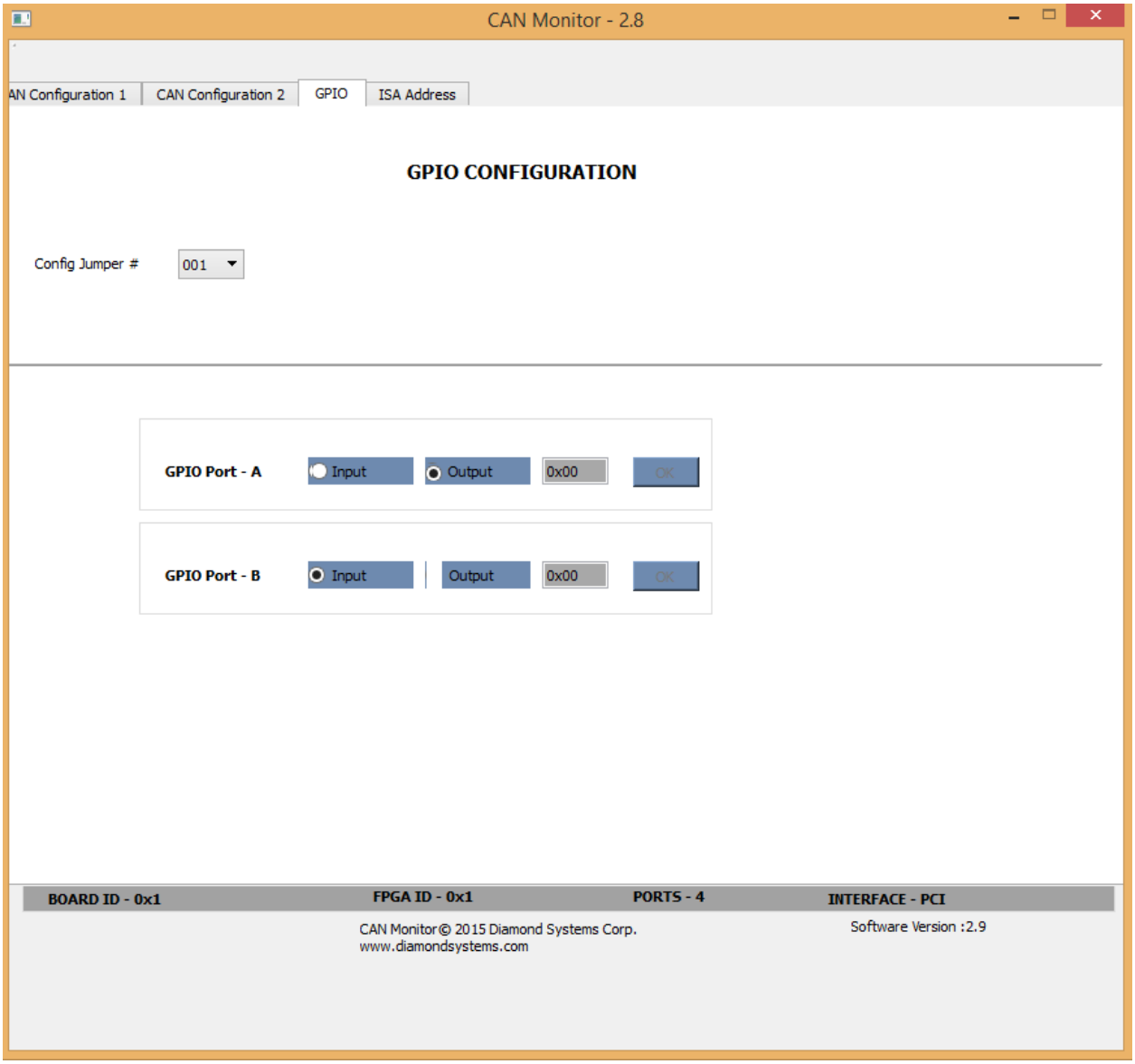


- Click on the GPIO tab to configure the two GPIO ports for input or output.



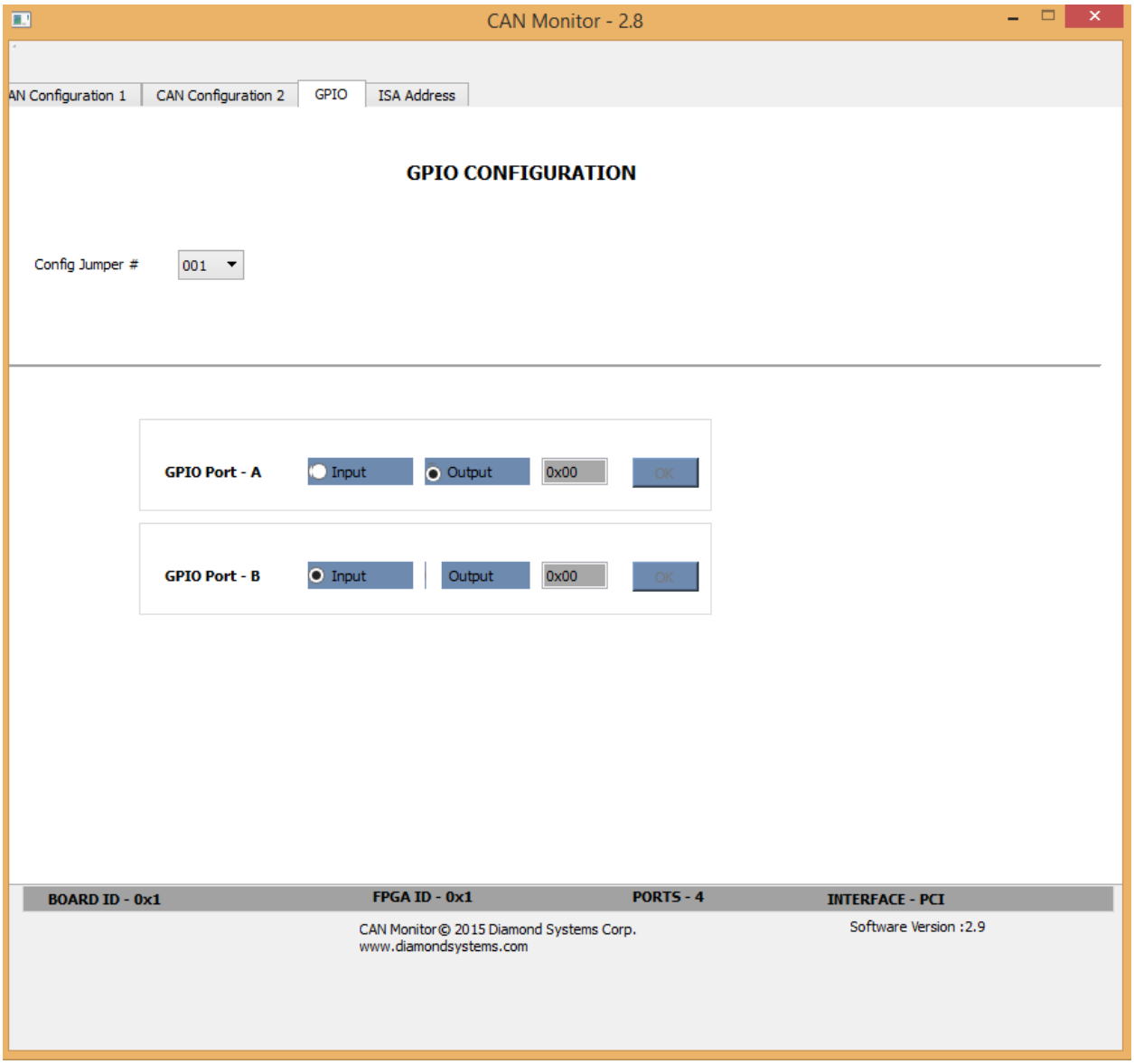
15. GPIO INPUT OPERATION

- Click on Input to configure a port for input mode. The input data will be displayed automatically. Data is refreshed approximately once per second.



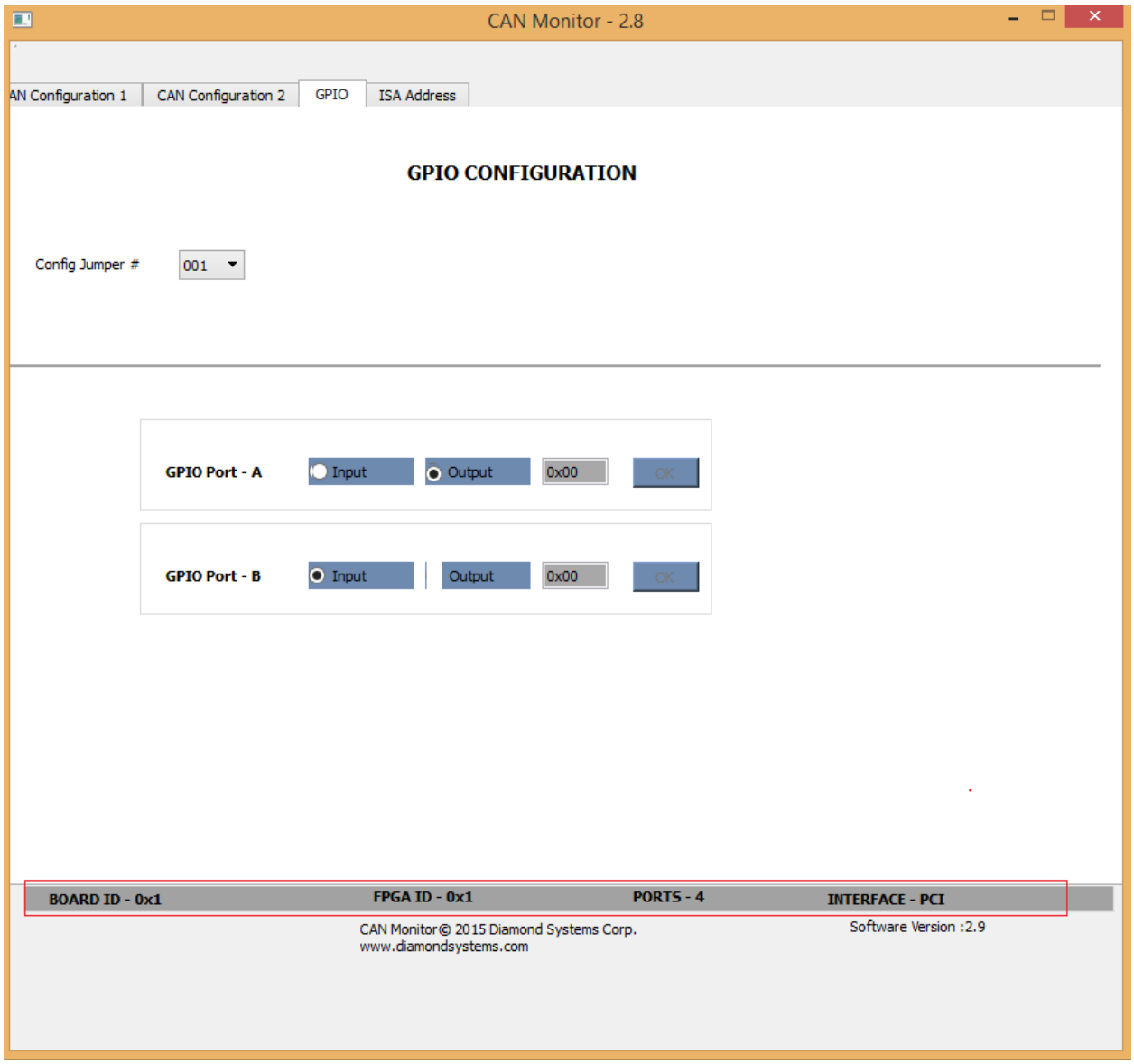
16. GPIO OUTPUT OPERATION

- Click on Output to configure a port for output mode. The data field becomes available for user entry. Enter the desired 8-bit output data in hex using the 0xnn format as shown below, then press OK to write the data to the port. The data is not output until the OK button is pressed.



- Similarly, Port-B can be configured as either Input or Output port.

17. STATUS BAR



- A status bar at the bottom of the screen displays information about the installed board and the program.

  FPGA ID: Displays the FPGA ID; each product family has a unique FPGA ID

  Board ID: Displays the board ID:

  0x1101: PCI model

  0x1100: ISA model, or PCI model operating in ISA mode

  Ports: Displays number of CAN ports present on the board, either 2 or 4

  Interface: Displays the active bus interface, either ISA or PCI.