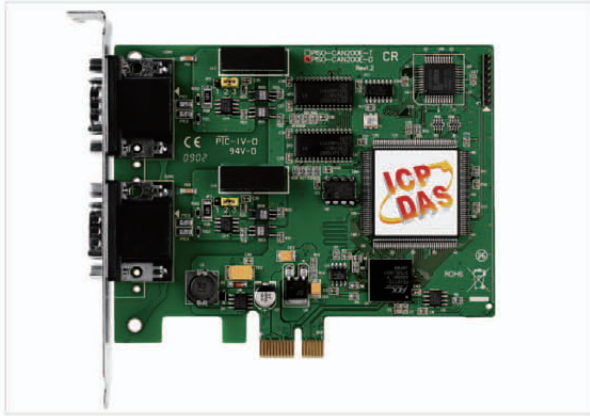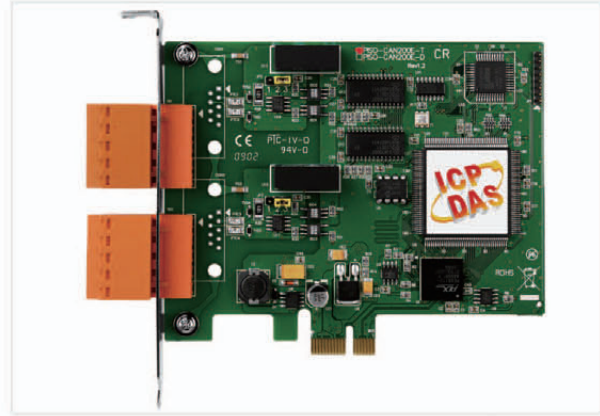# PCI Interface

## PCI Express x1 CAN Communication Card

CE FC RoHS

PEX-CAN200i-D

PEX-CAN200i-T

The PEX-CAN200i can represents an economic solution of an active CAN board with express PCI bus. It has 2 independent CAN bus communication ports with 5-pin screw terminal connector or 9-pin male D-sub connector, and has the ability to cover a wide range of CAN applications. Besides, PEX-CAN200i uses the new CAN controller Phillips SJA1000T and transceiver 82C250, which provide bus arbitration, error detection with auto correction and re-transmission function.

Features

- Compatible with CAN 2.0 parts A and B
- Fully compatible with ISO 11898-2 standard
- Support CAN bard from 10 kbps ~ 1 Mbps
- 2500 Vrms photo couple isolation on the CAN bus
- 33 MHz, 32 bit, X1 PCI Express bus
- Built-in jumper to select 120 Ω terminal resister
- 3 kV galvanic isolation
- 2 independent CAN channels
- Direct memory mapping to the CAN controller
- Provide VB6.0, VC++6.0, Delphi, BCB6.0 demos
- LabView/DASYLab driver
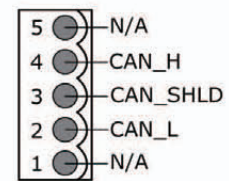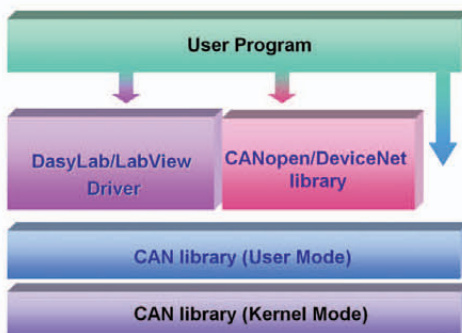- Driver support Windows 98/ME/NT/2K/XP

Hardware architecture
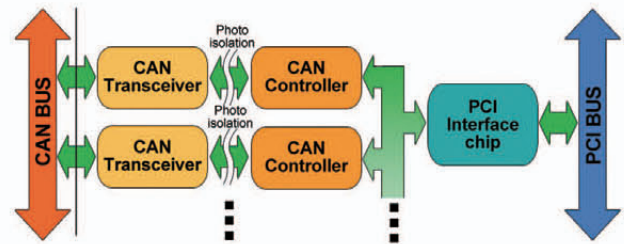
Software Layer

Pin Assignments
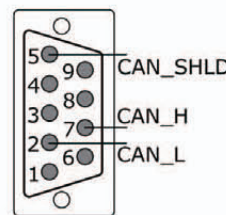
9-pin D-sub male connector

5-pin screw terminal connector

Terminal Resistor
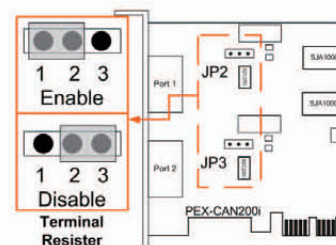
Hardware Specifications

Model Name	PEX-CAN200i-D	PEX-CAN200i-T
Bus Interface		
Type	33 MHz, 32 bit, X1 PCI Express bus	
CAN Interface		
Controller	NXP SJA1000T with 16 MHz clock	
Transceiver	NXP 82C250	
Channel number	2	
Connector	9-pin male D-Sub	5-pin screwed terminal block
Baud Rate (bps)	10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M (allow user-defined baud rate)	
Terminator Resistor	Jumper for 120 Ω terminator resistor	
Power		
Power Consumption	100 mA @ 12 V, 100 mA @ 3.3 V	
Mechanism		
Dimensions	120mm x 22mm x 85mm (W x L x H)	
Environment		
Operating Temp.	0 ~ 60 °C	
Storage Temp.	-20 ~ 70 °C	
Humidity	5 ~ 85% RH, non-condensing	

Utility
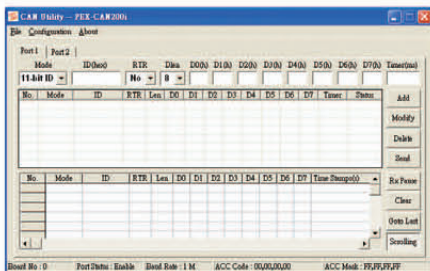
- Can be a CAN system monitor tool with CAN cards
- Can test CAN cards
- Send/Receive/Record CAN messages
- Provide cyclic transmission function
- Record the CAN messages with filter ID with time stamp

Flow Diagram for Applications

Flow Chart of "Send CAN Messages"

Start of Application → CAN_ActiveBoard → CAN_Reset → CAN_Init → CAN_Config → CAN_SendMsg → CAN_CloseBoard → End of Application

Flow Chart of "Receive CAN Messages"

Start of Application → CAN_ActiveBoard → CAN_Reset → CAN_Init → CAN_Config → CAN_RxMsgCount > 0 (No loops back; Yes → CAN_ReceiveMsg) → CAN_CloseBoard → End of Application

Flow Chart of "Receive CAN Message with IRQ"

Start of Application → CAN_ActiveBoard → CAN_Reset → CAN_Init → CAN_Config → CAN_EnableRxIrq → CAN_InstallIrq → CAN_RxMsgCount > 0 (No loops back; Yes → CAN_ReceiveMsg) → CAN_DisableRxIrq → CAN_RemoveIrq → CAN_CloseBoard → End of Application

Ordering Information

PEX-CAN200i-D CR	2-Port Isolated Protection CAN Communication Board with 9-pin D-sub connector (RoHS)
PEX-CAN200i-T CR	2-Port Isolated Protection CAN Communication Board with 5-pin Screw Terminal Connector (RoHS)