

# I-8120W

1 Port Intelligent CAN bus communication Module

## Features

- 80186, 80MHz CPU inside
- SJA1000 CAN controller, 82C250 CAN transceiver
- Support CAN 2.0A and CAN 2.0B specification
- Built-in switch for120 Ω terminal resister
- Max CAN bus transmission speed up to 1M bps
- Max transmission distance over 1000m

## Introduction

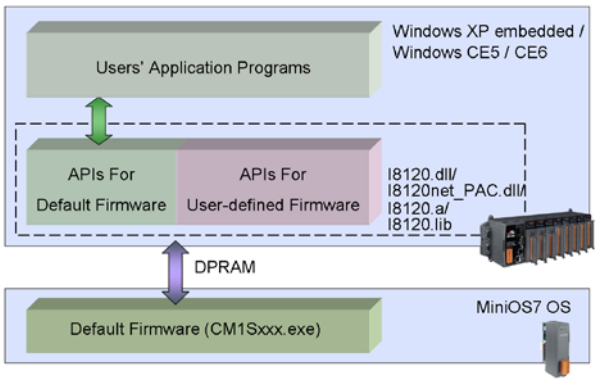
The I-8120W has one CAN communication port with 5-pin screw terminal connector. It uses the NXP SJA1000T and transceiver 82C250, which provide both CAN 2.0A and 2.0B specific, re-transmission function, bus arbitration and error detection. Combining the benefits of PACs of ICP DAS without increasing the CPU loading heavily, it could be a powerful multi CAN port programmable device server by driving the program in the 186 CPU of the I-8120W. It can also communicate with other kinds of communication interface, such as RS-232/RS-485/Ethernet ports to be a programmable multi-interface device server.

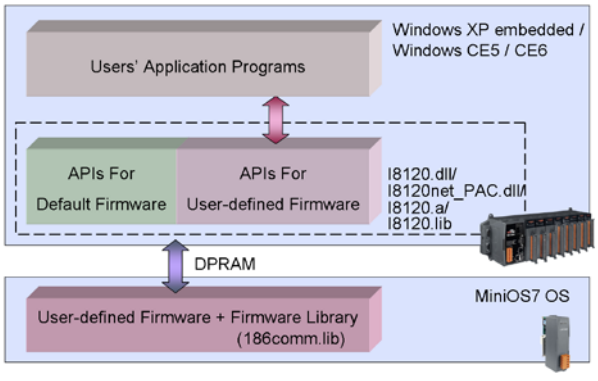
## Software Features

- Support hardware timestamp
- Dual port RAM communication mechanism
- 2048 CAN message reception buffer size
- Allow user-defined firmware
- Support user-defined baud rate
- Utility to update default firmware or download the user-defined firmware
- Utility tool for transmitting / receiving CAN messages
- Easy-to-use data logger for the diagnosis of CAN networks and for recording of the received data

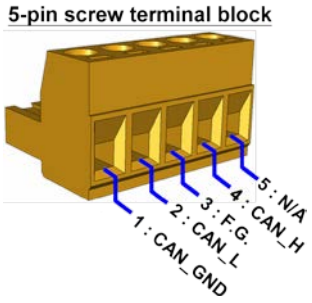
## Host Library

- Support WinPAC, ViewPAC and XPAC
- Provide eVC++4.0, VC6, VC++ 2005, C#.net 2005, VB.net 2005 demos and library
- Provide C/C++ demos and library for designing the user-defined firmware



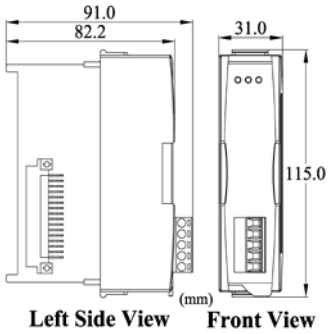




## Pin Assignments




| Pin No. | Description |
|---|---|
| 1 | CAN Ground |
| 2 | CAN low bus line |
| 3 | CAN Shield |
| 4 | CAN high bus line |
| 5 | Non-available |

## Dimensions (Units: mm)



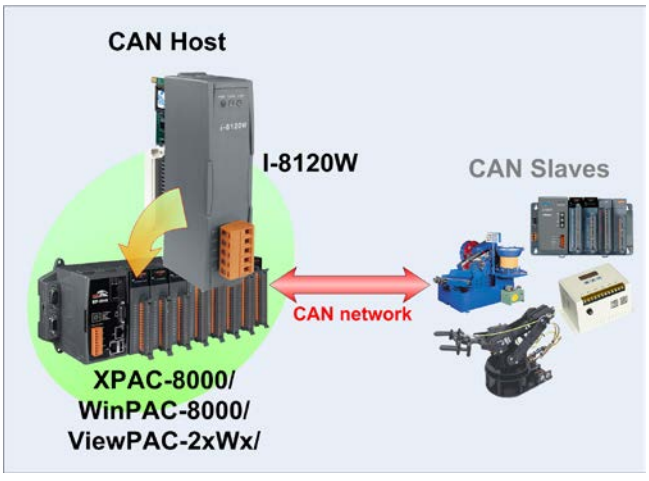


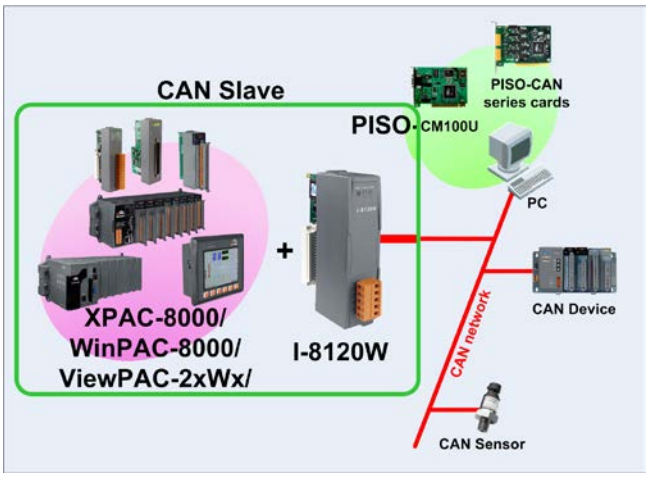

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## Hardware Specifications

| Hardware | |
|---|---|
| CPU | 80186, 80 MHz or compatible |
| SRAM/Flash/EEPROM | 512 KB / 512 KB / 16 KB |
| DPRAM | 8 KB |
| Watchdog | Watchdog IC |
| ESD Protection | 2 kV class A |
| **CAN Interface** | |
| Controller | NXP SJA1000T with 16 MHz clock |
| Transceiver | NXP 82C250 |
| Connector | 5-pin screw terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, N/A) |
| Baud Rate (bps) | 10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M (allow user-defined baud rate) |
| Isolation | 3000 $V_{DC}$ for DC-to-DC, 2500 Vrms for photo-couple |
| Terminal Resistor | Switch for 120 Ω terminal resistor |
| Specification | ISO-11898-2, CAN 2.0A and CAN 2.0B |
| **LED** | |
| Round LED | PWR LED, RUN LED, ERR LED |
| **Software** | |
| Driver | I-8120W (for designing user-defined firmware), WinPAC, ViewPAC, XPAC, XPAC-CE6 (The XPAC series PAC only support one I-8120W) |
| Library | TC/BC/TC++/BC++, eVC++ 4.0, VC++ 2005, C#.net 2005, VB.net 2005 |
| **Power** | |
| Power supply | Unregulated +10 ~ +30 $V_{DC}$ |
| Protection | Power reverse polarity protection, Over-voltage brown-out protection |
| Power Consumption | 1.5 W |
| **Mechanism** | |
| Dimensions | 31mm x 91mm x 115mm (W x L x H) |
| **Environment** | |
| Operating Temp. | -25 ~ 75 ℃ |
| Storage Temp. | -30 ~ 80 ℃ |
| Humidity | 10 ~ 90% RH, non-condensing |

## Application




## Ordering Information

| | |
|---|---|
| **I-8120W CR** | 1-port Programmable CAN Module (Parallel Bus Type) (RoHS) |



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