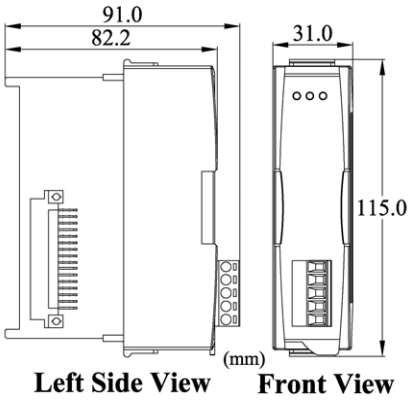
1 Port Intelligent CAN bus communication Module



I-8120W

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.

Hardware Features

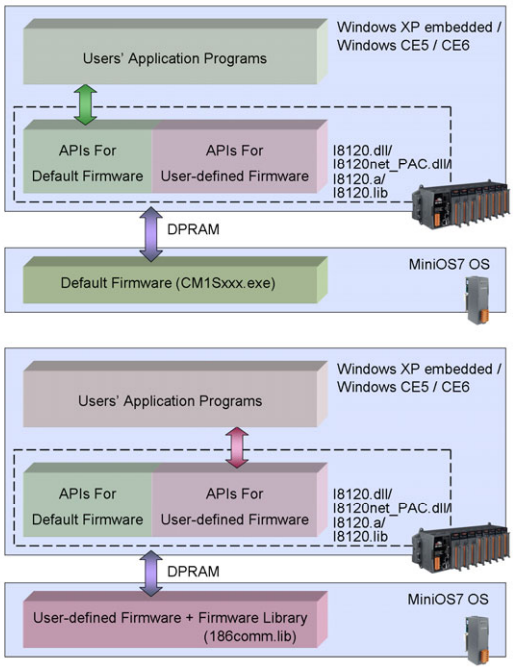
- 80186, 80MHz CPU inside
- SJA1000 CAN controller, 82C250 CAN transceiver
- Support CAN 2.0A and CAN 2.0B specification
- Built-in switch for120 Ω terminal resister
- Max CAN bus transmission speed up to 1M bps
- Max transmission distance over 1000m

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

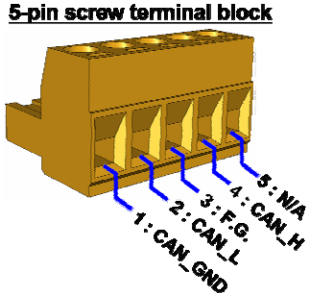
Host Library

- 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

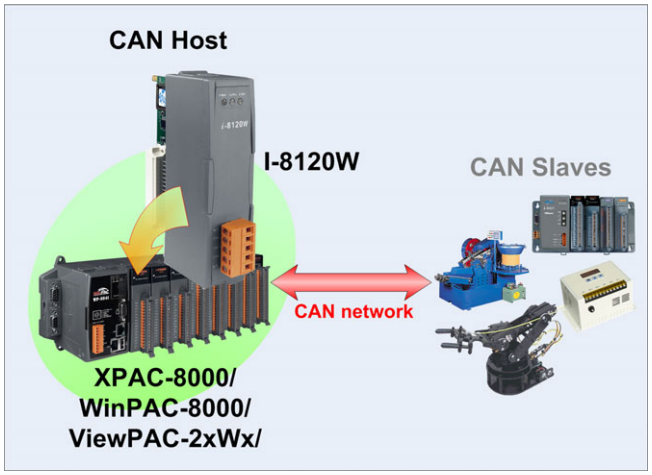
5-pin screw terminal block

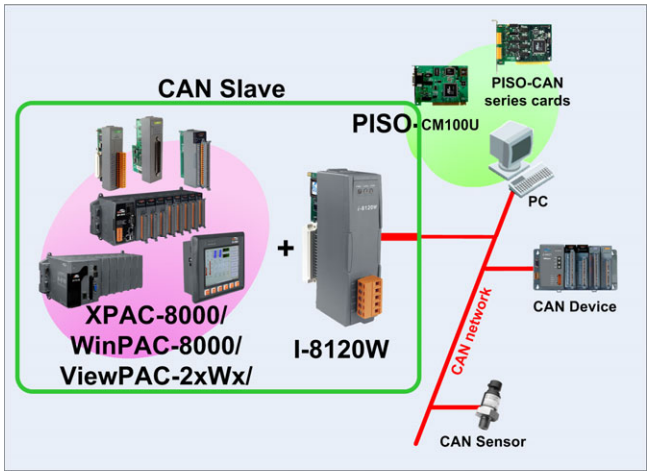


Pin No.	Description
1	CAN Ground
2	CAN low bus line
3	CAN Shield
4	CAN high bus line
5	Non-available

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
Terminator Resistor	Switch for 120 Ω terminator 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

Applications





Ordering Information

I-8120W	Module with one programmable CAN port, firmware and application program libraries, 80186 80MHz CPU, 8 KB DPRAM, 512 KB flash, 512 KB SRAM, 120 Ω terminal resister selected by switch. **Art. No. 122548**