I-8120W

Quick Start User Guide

1. Introduction

This user guide introduces users to apply the I-8120W in their application quickly. Therefore, if users want to know the details, please refer to the user manual of I-8120W. You can find it in the CD or the website.

CD path: <u>CAN/SlotModule/ I 8120W/Documents</u> Website: <u>http://www.icpdas.com/products/Remote_IO/can_bus/i-8120w.htm</u>

2. Hardware structure

PWR Tx/Rx ERR	Mode	LED		Desc	ription			
		PWR	Turn ON when power on					
7-8120W	Default	Tx/Rx	Flash once when getting/sending a CAN message					
LOILOFF	Fimware	Err	Turn ON for finding an error. Flash for transmitting fail.					
		PWR	PWR Turn ON when power on					
	Firmware	Tx/Rx Err	Tx/Rx Err User-defined LED					
		PWR	Turn ON when power on					
	Download	Tx/Rx	Interlage flack once per second					
			Err					
	Female Connecto	or						
	- Charles and	and the second se	Pin No.	Signal	Description			
		77	1	GND	Ground			
			2	CAN_L	CAN_L bus line			
	L ANT		3	N/A	Non-available			
	7. 2.0	A CAN A	4	CAN_H	CAN_H bus line			
	C.W.	With	5	N/A	Non-available			
	<u>ک</u> ور د	6						



Jumper	Description	Status		
SW1	120Ω terminator resistance of CAN port.	Enable	Sw1 Disable	
JP1	Lock mode for resisting the noise or disturbances. In this case, updating firmware is not allowed. Unlock mode for updating the firmware of I-8120W.	ј јрі Lock	JP1 Unlock	
JP2	Debug port for user-defined firmware. The I-8120W prints the debug messages or system information from this port. Connect this port to PC COM port. Use 7188xw.exe to show the messages. The baud rate is 115200 bps. You can find the 7188xw.exe in the CD. The path is <u>CAN/SlotModule/</u> 8120W/Tools/PC	1 The		
JP4	Reset mode for forcing the I-8120W into download mode. Wiring this jumper until Tx/Rx LED and Err LED are always ON. Then, remove the wire.	Reset	●●JP4 Normal	

3. How to Start

Step1: Set the SW1 of the I-8120W to the proper position. Generally, the both end of CAN bus (line topology) needs 2 terminator resistance. Each of them is 120Ω.Step2: Unlock the JP1. Generally, unlock the JP1 during developing the application.

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When running the application in practice, locking the JP2 is helpful to resist the noise and disturbances.

- Step3: Connect the JP2 with PC COM port.
- Step4: Set the JP4 to normal.
- Step5: Plug the I-8120W in your PAC. Here, use WinPAC for the demonstration. Connect the CAN port of the I-8120W with the CAN network. Connect the peripherals (such as monitor, Keyboard, mouse, and Ethernet) with the WinPAC. Then, turn on the WinPAC.
- Step6: Download the I8120W_Utility.exe and the I-8120.dll into the same folder on the WinPAC. You can use ftp or USB disk to do this. (Before using the ftp, you must configure the ftp parameters of WinPAC by using WinPAC Utility. You can find the shortcut *W* on the desktop of WinPAC.) Please refer to the WinPAC user manual.

CD path of the utility tool: CAN/SlotModule/ I_8120W/Tools/WinPAC

CD path of the I8120.dll: CAN/SlotModule/ I_8120W/Demos/WinPAC_Library/

User manual of WinPAC:

http://www.icpdas.com/products/PAC/winpac/download/winpac_8000/download_docum ents.htm

For Default Firmware:

Step7: Run the I8120W_Utility.exe. Assume the I-8120W is plugged in slot 4 of the WinPAC, set the slot No. to slot 4.

I-8120W Utility Ver1	.00		ок 🔀
	Filter Setting (Hex)	Baud Setting (Hex)	Msg Format
In Slot 0	Acc Code 00000000	Baud 🛛 125K bps 🛛 🐱	💿 Hex 🔵 Dec
Slot 1 UpdateSlot 2	Acc Mask FFFFFFFF	BTO FF BT1 FF	🔿 ASCII
Slot 3 Enabe <mark>Slot 4</mark> DicabeSlot 5	CAN Status CAN Status (Hex) : ****	Clear Status Pause	Rx Msg Buffer:
Slot 6 Slot 7	Rx Msg Cnt: *********	Reset Counter Clear	Tx Msg Buffer:
NO. Mode	RTR L DO D1 D2	D3 D4 D5 D6 D7	Time

Step8: Assume the baud of the CAN network is 125 kbps. Set the filter, baud, and message format as follows:

ago ionnacao ionomo.		
Filter Setting (Hex)	Baud Setting (He	x) Msg Format
Acc Code 00000000	Baud 125K bps	
Acc Mask FFFFFFFF	BT0 User defined	ASCII
CAN Status	20K bps 50K bps	e Rx Msg Buffer:
Rx Msg Cnt: *********	Reset C 250K bps 500K bps	Tx Msg Buffer:
RTR L DO D1 D2	D3 C 800K bps 1000K bps	07 Time

Setp9: The receiving messages will be shown on the list, and users can use the button "Send" to send a CAN message. Use "SaveToFile" to save the receptions. In this case, uncheck the "Show message on the list" to improve the efficiency of the WinPAC

I-8120W Utility Ver1.00 OK 🔀													
Slot NO, Slot 4 🛛 🐱		Filter Setting (Hex)			_]	Baud Setting (Hex)			Msg Format				
	Initializ	e	Acc Co)de		10000	-11	Bau	d 1	25K bp —	os 📐	2	
Upd	ate Firr	nware	Acc M	ask	FFFFF	FFF		BTO) FF	BT	1 FF		() ASCII
Enable Sys Msg CAN Status (Hex): 0x0C Clear Status Pause Rx Msg Buffer:							Rx Msg Buffer: 🔘						
Dis	able Sy	s Msg	(Rx Ms	g Cr	nt: 0	00000	0004	Reset	: Cou	nter	Cle	ar	Tx Msg Buffer: 🔘
NO.	Mode	ID	RTR	L	DO	D1	D2	D3	D4	D5	D6	D7	Time
000 001	2.0A 2.0A	123 321	N Y	8 8	11	22	33	44	55	66	77	88	0210288 0224161
002 003	2.0B 2.0B	1FFFFFFF 12345678	N F Y	8 8	12	23	34	45	56	67	78	89	0236729 0246921
Send CAN Message													
● 11-bit ID ID (Hex) Len Data (Hex)(separated by space) ● 29-bit ID 3FF □ RTR 8 FF FF FF FF FF FF FF FF Send													

Step10: Users can download and run the demos for default firmware on the WinPAC. You can find them in the CD. The path is shown as follows:

CAN/SlotModule/ I 8120W/Demos/For Default Firmware/WinPAC



For Updating Firmware:

Step7: Run the I8120W Utility.exe. Assume the I-8120W is plugged in slot 4 of the WinPAC, set the slot No. to slot 4. Then, click the button "Update Firmware". I-8120W Utility Ver1.00 0K Filter Setting (Hex) Baud Setting (Hex) Msg Format Slot NC Slot 4 Acc Code 00000000 Baud 🛛 125K bps 🛛 🗸 🔘 Hex 🔘 Dec Initialize Acc Mask FFFFFFFF BTO FF ASCII BT1 FF Update Firmware

Step8: Use ftp or USB disk to copy the newer firmware on to the WinPAC.

Step9: The pop-up dialog shows the information of current firmware. Click the button "Update". Afterwards, select the newer file from the pop-up dialog.

	Update		g 🛛
			Update
(Firmware: CM1S107.EXE	Modified: 2009/3/311:37:15	Size: 112918

For User-defined Firmware:

Step7: Users need to build their application of the WinPAC and the firmware of I-8120W firstly. Use eVC++, WinPAC SDK, I8120.lib and I-8120.h to develop the WinPAC application. Use TC/BC/TC++/BC++, 186COMM.lib, and 186COMM.h to develop the firmware of I-8120W. You can find these file in the CD or website. The path is show as follows:

Website:

eVC++:

http://www.microsoft.com/downloads/details.aspx?FamilyId=1DACDB3D-50D1-41B2-A107-FA75AE960856&displaylang=en

WinPAC SDK:

http://www.icpdas.com/products/PAC/winpac/download/winpac_8000/download_sdk.ht m

TC++ 1.01

http://www.icpdas.com/download/download-list.htm

CD path:

I-8120.lib and I-8120.h for eVC++:

CAN/SlotModule/ I_8120W/Demos/WinPAC_Library

186COMM.lib and 186COMM.h for TC/BC/TC++/BC++:

CAN/SlotModule/ I_8120W/Demos/For_User_Defined_Firmware/Firm_Lib

- Step8: When finishing the user-defined firmware of the I-8120W, download it into the WinPAC. Please refer the Step7 of the "For Updating Firmware".
- Step9: Run your WinPAC application. For more details about how to program the application and firmware, please refer to the user-defined demos and user manual for the details.



