tM-7530 快速使用指南

2014年九月, 1.0.0版



簡介

泓格科技提供了多種 UART/CAN 產品的解決方案並廣受市場所推崇。而這些 UART/CAN 轉換器可幫助使用者實現 RS-232 與 CAN 網絡間的通訊。為了迎合顧客 成本的需求,我們提供了一個新的 RS-232/CAN 轉換器的解決方案,tM-7530。 tM-7530 是一個微小化的 RS-232/CAN 轉換器。由於它的尺寸較小,所以它可以適

應更狹隘的環境裡。它於 CAN 端、Power 端都帶有隔離器且其效能勝於其它 RS-232/CAN 轉換器。tM-7530 的功能性方面可完全相容 I-7530、I-7530T。此外, 它提供了新的功能 Listen Only,可讓使用者來監聽 CAN 訊息與錯誤偵測。依據 以上的特性,故 tM-7530 是一個經濟且有效 RS-232/CAN 轉換器的解決方案。



技術支援

• tM-7530 使用手册

CD:\ fieldbus_cd\can\pac\ converter\ tM-7530\ manual\ http://ftp.icpdas.com/pub/cd/fieldbus_cd/can/converter/tM-7530/manual\

•tM-7530 網站

http://www.icpdas.com/root/product/solutions/industrial_communication/fiel dbus/can_bus/converter/tM-7530.html

• tM-7530 工具軟體

http://ftp.icpdas.com/pub/cd/fieldbus_cd/can/converter/tM-7530/utility

硬體介紹與安裝



左圖為tM-7530的外觀.於RS-232的通訊介面上使用D-sub 9 pin 母頭的端子並且使用 2 線式或 3 線式連接彈簧鎖片端子 (spring type)的 CAN 介面。tM-7530 待有兩個 LED 指示燈 Run 與 Err。透過燈號顯示以即時的回應模組狀態。

RS-232 腳位對映表

腳位	3線式 RS-232
1	N/A
2	RS-232 TxD
3	RS-232 RxD
4	N/A
5	RS-232 GND
6	N/A
7	N/A
8	N/A
9	N/A

電源與 CAN 總線端腳位對映表





LED 燈號表

LED 燈號	條件	狀態					
	設定模式	每秒閃爍一次					
Run	品作指十	當沒有資料備傳送時,保持恆亮					
	採作供式	當有資料傳送時,閃爍一次					
Err	緩衝區溢位						
	CAN Bus Off	保持恆亮					
	CAN Error Passive						
	某些錯誤發生時	閃爍					

0

0







tM-7530 spring type connector





tM-7530 並未內建終端電阻。若需使用時,請連接外部的終端電阻。

5-----工具軟體简介

	Open Configuration Windows Windows +			
File - Advanced - Stard Mode D RTR Len Dd DL D2 D3 D4 D5 D6 D7 mo CAN 2 OA 33 D N D 11 22 33 Len D5 D6 D7 mo CAN 2 OA 33 D N D N D D1 D2 D3 D4 D5 D6 D7 mo D CAN 2 OA N D3 D N D D1 D2 D3 D4 D5 D6 D7 mo D CAN 2 OA N D <	tM-7530 CAN1 (VxCANPort 00)	2 H-7530 E tour 1 I		
Stand Mode DFIR Len DP DL D2 D3 D4 D5 D6 D7 mss CAN 2.0.0. W 332.0 W W 11 22.0 33 44 55 66 77 88 Control Contro Contro Control </td <th></th> <td>File * Setting * Advanced *</td> <td></td>		File * Setting * Advanced *		
Mode D0 DTR Len D0 D1 D2 D3 D4 D5 D6 D7 PTR CM120A 93 20 9 9 11 22 33 84 95 64 77 PTR D D1 Increase Control 11 22 33 84 95 64 77 PTR D		Send		
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[Name:tM-7530] [Status: Normal,0] [BaudRate:1000000] [Coptright(c) 2013 ICP DAS Co., LTD.]	4 7 9 9	[Name:tM-7530] [Status: Normal,0] [BaudRate:1000000] [Coptright(c) 2013 ICP DAS Co., LTD.]	đ	

tM-7530 使用 VxCAN Utility 作為模組設定與 測試的工具。VxCAN Utility 是以泓格科技所研發 的 Virtual CAN 技術所研發出的軟體,主要是用來 整合泓格科技的 CAN 轉換器產品。所有 PC 連接的 CAN 介面將透過 Virtual CAN 技術被依據地對映成 虛擬 CAN 通訊埠。使用者只需使用虛擬 CAN 通訊埠 來研發應用程式即可,不需考慮他們所使用的 CAN 轉換器為何。

6 透過 VxCAN Utiliy 設定 tM-7530

步驟 1: 設定 tM-7530 於 Init 模式

於模組上電前將 Init/Normal 指撥開關設置於 Init 位置。並重啟模組。 當 tM-7530 進入 Init 模式,則 Run 指示燈會開始閃爍。



步驟 2: 將 tM-7530 與 PC 端的可用 COM port 進行連接,並執行 VxCAN Utility。



步驟 4: 當搜尋完成後,tM-7530 將會被顯示於 VxCAN Utility 左方視窗的列表上。

□ tM-7530 CAN1 (VxCANPort 00)

步驟 5: 點擊列表中 tM-7530-Init 的節點後,模組設定視窗將會開啟。

😸 VxCANPort: 1 (tM-7530) - Module	Setting						
UART Baud Rate: 115200	CAN CAN Specification CAN 2.0A CAN 2.0B						
⊙ 8 ○ 7 ○ 6 ○ 5 Stop Bit ○ 1 ○ 2	CAN Baud Rate: 125K						
Parity Bit None Odd Even Add CheckSum	Real Baud Rate: 125000 Advanced						
 ○ Enable ○ Disable Enror Response ○ Enable ⊙ Disable 	Set CAN ID Filter						
TimeStamp Response	Mode: Norma						
Save All Setting	Load Default Setting						

設定畫面被區分為三個不同顏色的區域。分別是 UART 設定、通訊設定與 CAN 設定區域。 各個區域可分別設定 tM-7530 的不同參數。

在完成設定後,使用者可點擊 "Save All Setting"以儲存設定值至 CAN 轉換器的 EEPROM。若使用者想恢復設定值為出廠狀態,請點擊 "Load Default Setting" 按鈕以 恢復所有設定參數為預設值。然後,在點擊 "Save All Settings" 按鈕以儲存預設值至 CAN 轉換器的 EEPROM。

tM-7530 預設值:

RS-232:

RS-232 波特率	= 115200
資料位元	= 8
停止位元	= 1
同位元檢查	= None
啟用 Checksum	= No
啟用錯誤回應	= No
啟用回應時間戳記	= No

CAN:

CAN 規範	= 2.0A
CAN 總線波特率	= 125K
接受碼	= 000
接受遮罩	= 000

通訊:

模式:一般模式

步驟1: 設定 tM-7530 於 Normal 模式

於模組上電前將 Init/Normal 指撥開關設置於 Normal 位置。並重啟模組。 當 CAN 轉換器於 Normal 模式下, Run LED 指示燈將為恆亮。若 CAN 轉換器傳送或接收 到 CAN 訊息時,則每筆訊息閃爍一次。



步驟 2: 將 tM-7530 與 PC 端的可用 COM port 進行連接,並執行 VxCAN Utility。

步驟 3: 點擊搜尋按鈕 ④ 並找尋已與 PC 連接的 1	tM-7530。
步驟 4: 當搜尋完成後,tM-7530 將會被顯示於 VxC	CAN Utility 左方視窗的列表上。
☐ tM-7530 CAN1 (VxCANPort 00)	

步驟 5: 點擊 tM-7530 的 CAN 通訊埠以設定 tM-7530 的模組參數。

S VxCAN_Utility V1.0	
🕴 Close Configuration Window Windows 👻	
IM-7530 CAN1 (VxCANPort 00)	VxCANPort: 0
	CANPort: 1
	ModuleName: tM-7530
	FirmwareVersion: 1.00
	CAN Baud Rate: 125K
	CAN Protocol: CAN
) 🔇 🔇 🕡	Active Port Confirm

勾選"Active Port"並點擊"Confirm"按鈕以啟用 CAN 轉換器的 CAN 通訊埠。於這裡設定的參數將不會被儲存至 EEPROM。若使用者想設定其它的 CAN 參數,請使用 VxCAN Utility 的設定介面。

🌃 tM-	-7530												X	
Port_	1			_	_	_	_		_	_	_			
. File	 Setting 	 Advanced 	•											
Sen	d													
1	vlode	ID	RTR	Len	D0	D1	D2 [D3 D4	D5	D6	D7	ms		庙兴厄山
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No.	Received	Message Lis	t							F	Remark			10 1 E 16
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[Nam	e:ttvi-/530]	[Status: 753	0000, 0]	ваиакат	e:125000	j [Copt	right(c).	2013 ICP D	AS CO.,	LID.J	-			

測試介面被分為兩個區域。一個是用來傳送 CAN 訊息,而另一個則用來接收。若使用者 想傳送 CAN 訊息,請將其資料填入相對欄位中並點擊" Send" 按鈕。當 CAN 轉換器收到 CAN 訊息時,它將自動的顯示這些訊息於接收區域中。

http://ftp.icpdas.com/pub/cd/fieldbus_cd/can/virtual_can/vxcan_utility/