
CT-M03 使用手冊

1 簡介

1.1 高可靠嵌入式系統設計

1.1.1 取代 PLC 或 IPC，適用於惡劣環境，成本低廉。

1.1.2 支援 Watch Dog Timer，可長時間可靠運作。

1.1.3 使用工業規格 MCU 及零組件，適合惡劣環境。

1.2 支援多種通訊及 IO 界面

1.2.1 RS232/RS485/CAN Bus 多種通訊界面支援，具備通訊整合能力。

1.2.2 內建可選擇的多種 DI/DO、AD/DA、溫度感測、電壓電流感測器等模組，可依應用需求選擇，無需再購置錶頭，或整合 IO 模組。

1.3 支援多種 CAN Bus 延伸 IO 模組及感測模組

請參考 CT Series 及 CS02 Series IO 及感測器模組說明。

1.4 內建 LCM 顯示及按鍵，可即時操作操作及監看

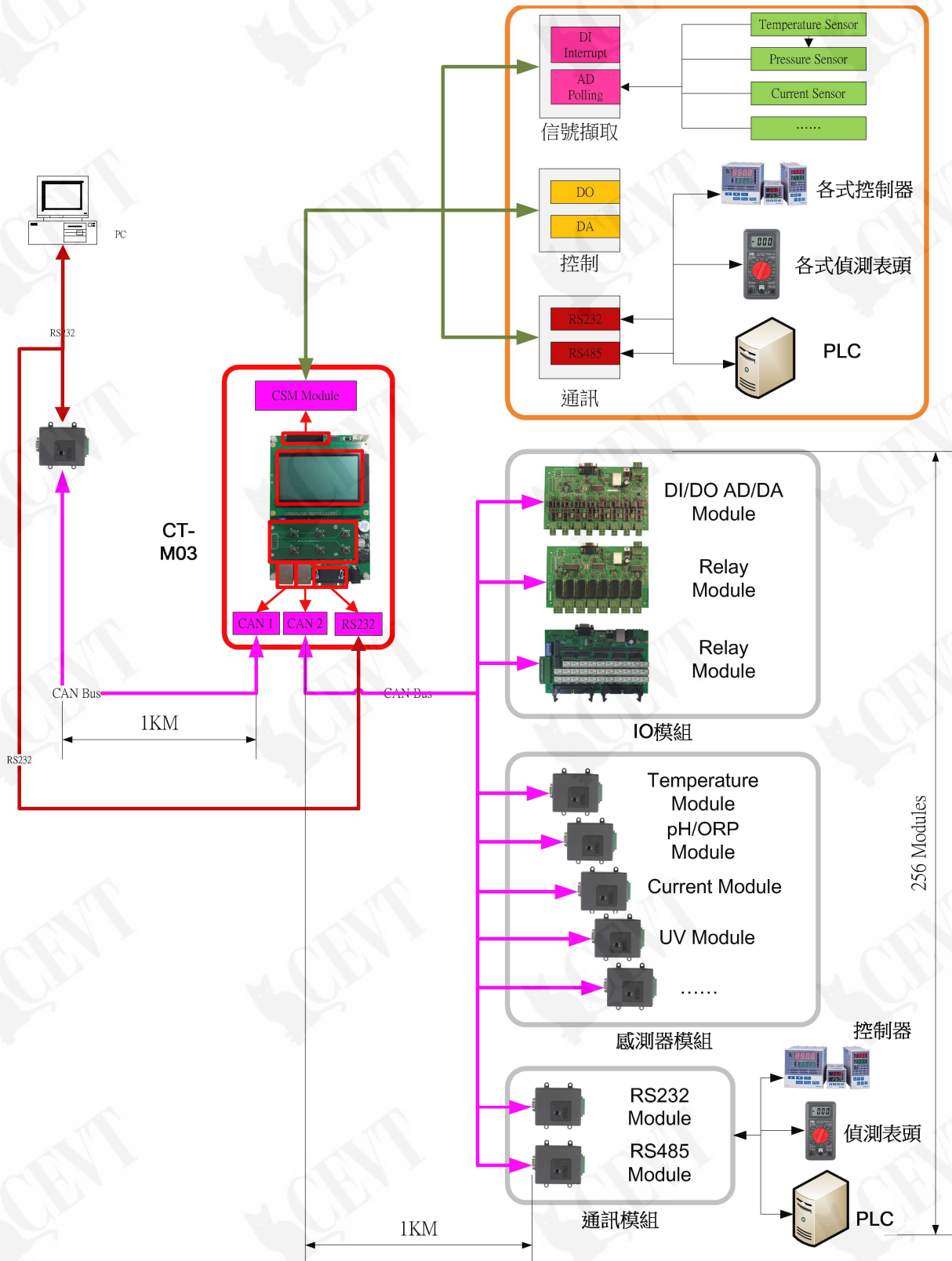
1.4.1 支援中英文顯示。

1.4.2 內建各項操作及測試功能，可進行現場操作及各項測試，確保可靠運作。

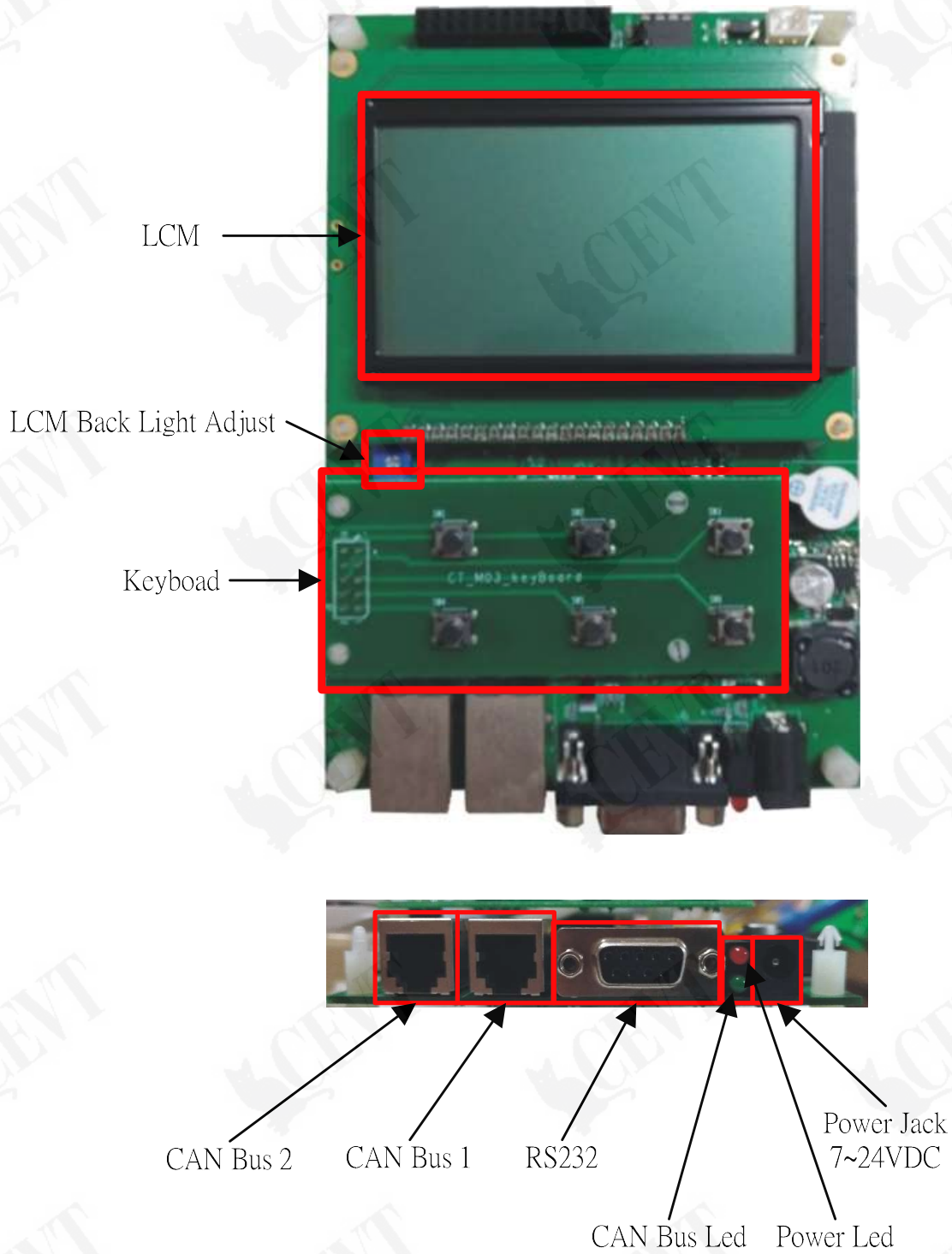
1.5 保護知識產權

1.5.1 系統封閉，無法複製，保障智財。

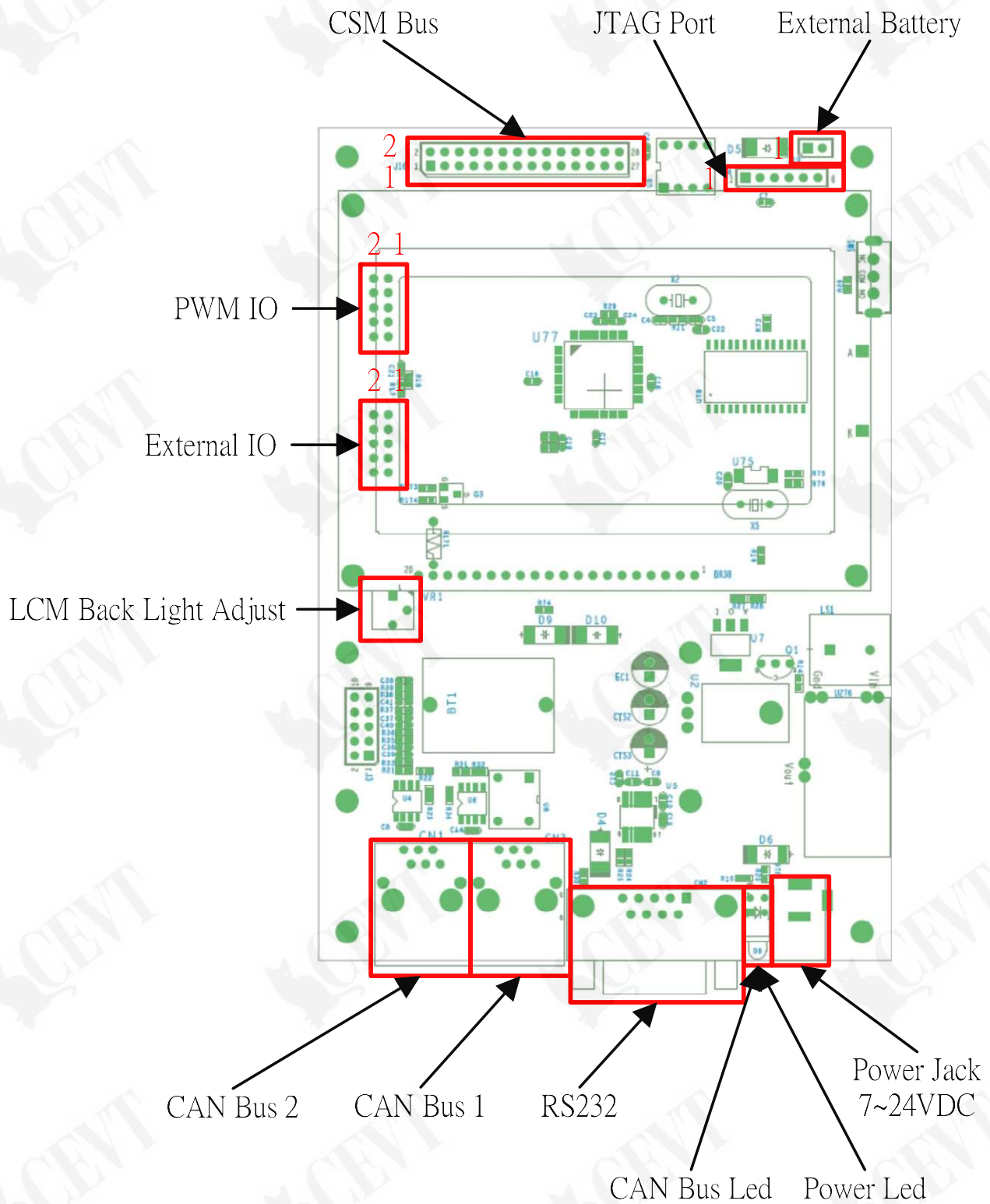
2 功能架構



3 外觀說明



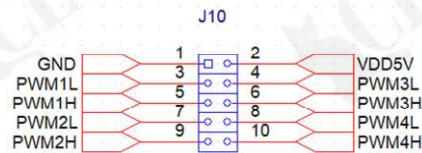
4 接腳說明



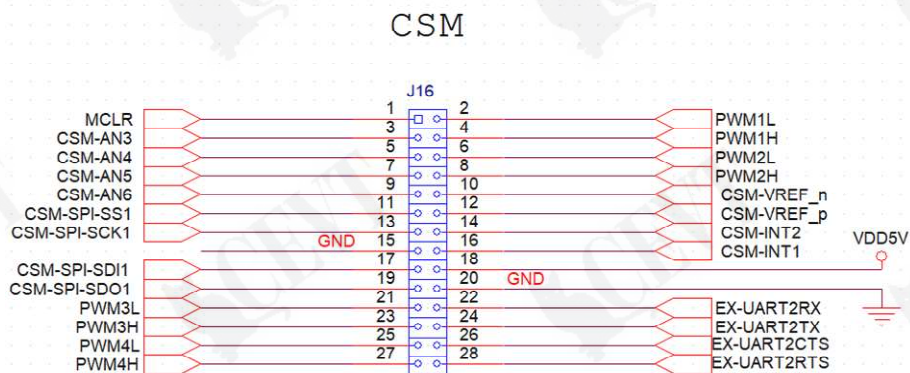
4.1 J9 External IO 接腳



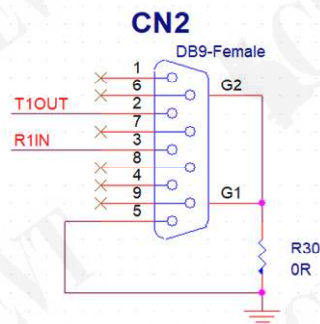
4.2 J10 PWM IO 接腳



4.3 CSM Bus 接腳



4.4 CN2 RS232 接腳



5 CT-M03 規格說明

5.1 CT-M03 Mother Board

| | | |
|--------------------------|-----------------------------------|--|
| MPU dsPic33FJ256MC710 | Speed | 200MHz 40MIPS |
| | Flash Program Memory | 256K Bytes |
| | Internal Data SRAM | 38.4K Bytes |
| | DMA | 8-channel hardware DMA 2 Kbytes dual ported DMA buffer area(DMA RAM) to store data transferred via DMA:Allows data transfer between RAM and a peripheral while CPU is executing code(no cycle stealing) Most peripherals support DMA |
| | DSC | Linear data memory addressing up to 64 Kbytes 83 base instructions: mostly 1 word/1 cycle Two 40-bit accumulators:With rounding and saturation options Flexible and powerful addressing modes : Indirect, Modulo and Bit-Reversed Software stack 16 x 16 fractional/integer multiply operations 32/16 and 16/16 divide operations Single-cycle multiply and accumulate : Accumulator write back for DSP operations, Dual data fetch |
| | External RAM | 32K Bytes, keep by battery |
| | RTC | Real time counter and calendar, keep by battery |
| | Communication | RS232 x 1, CAN Bus x2 |
| PWM | PWM x 4, up to 12bits resolution. | |
| External GPIO | GPIO x 8 | |

5.2 Optional Module

| | | |
|------------|--|---|
| LCM | 128x64 Pixels Graphical Type | Support tradition Chinese tool |
| Keyboard | 6 Keys | Support software for page display and operate |
| CSM Module | DIO Relay AD/DA Wifi RS485 | It can be customize type. |
| CT Series | DIO Card connect with CAN Bus AD/DA connect with CAN Bus Relay connect with CAN Bus | |
| GSM Module | 2.5G GSM module for message sender | Support tradition Chinese tool. Support GSM module setting tool. |