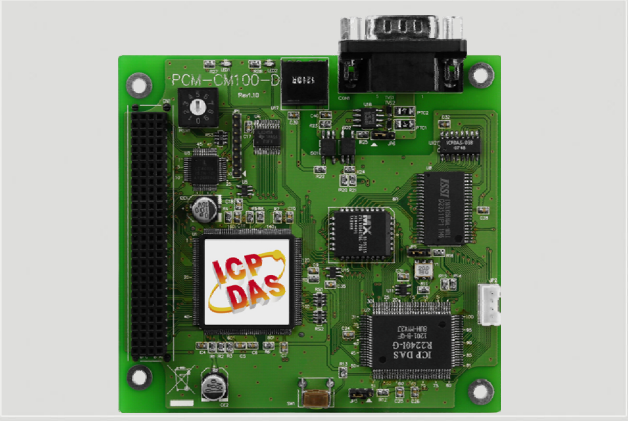
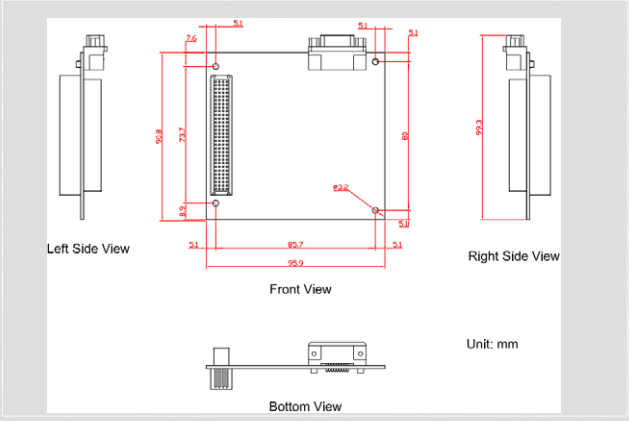
CAN Series Products

Intelligent PCI-104 CAN Communication Card



PCM-CM100-D



Dimensions

The PCM-CM100-D represents a powerful and economic solution. It has an internal 80186 compactable CPU for the complex protocol interpretations and implementations. Owing to the real-time DOS-like OS, MiniOS7, the PCM-CM100-D can cover most of all time-critical CAN-based applications, such as self-define CAN protocol, CANopen, DeviceNet, J1939, and so forth. Therefore, when users develop their projects, the PCM-CM100-D is helpful to handle the process of the CAN messages, and share the CPU loading of the PC or embedded system. Besides, the PCM-CM100-D allows users designing the firmware of the PCM-CM100-D. Through the library and demos, it is easy to finish the user-defined firmware to satisfy the users' requirements.

Hardware Features

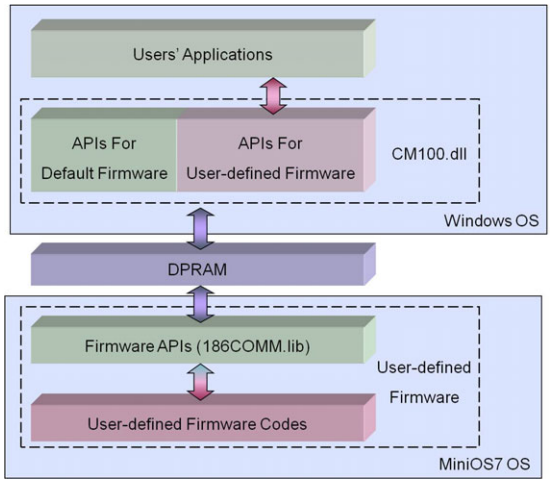
- Follow ISO11898-2 specification
- 2500Vrms photo-isolation protection on CAN side
- Jumper select 120Ω terminator resistor for CAN bus
- One CAN communication port
- Compatible with CAN specification 2.0 parts A and B
- 186 compactable CPU inside
- Arrange the inside DPRAM flexibly
- RTC(Real Time Clock) inside
- Red and green LED indicators

Firmware Features

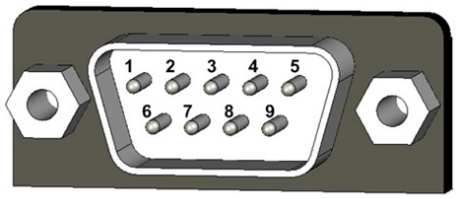
- Provide 8 kinds of default bauds and user-defined baud
- 2048 records reception buffer and 256 records transmission buffer
- Provide 5 sets of cyclic transmission.
- Timestamp for CAN messages
- Easy to update firmware

Host Library

- Driver for Windows 2K/XP/7(X32)
- Provide VC++, VB, BCB Delphi demos and libraries
- Support DPRAM read/write functions
- Provide user-defined CAN and DPRAM interrupt functions
- Support the default firmware or the user-defined firmware



Wire Assignments

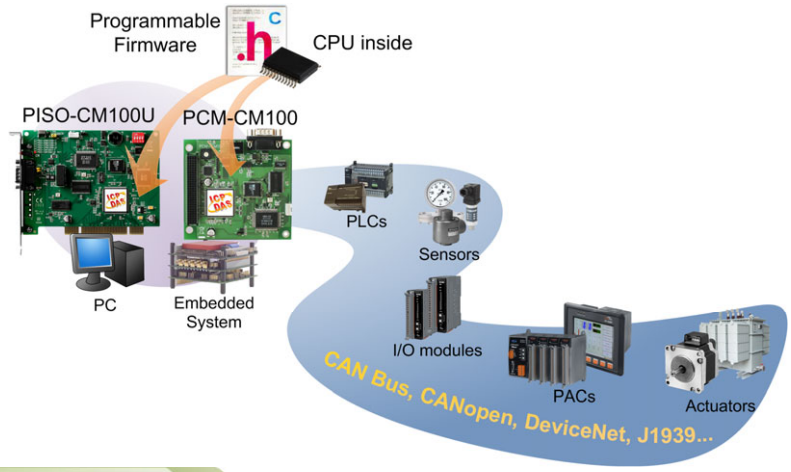


Pin No.	Signal	Description
1	N/A	No use
2	CAN_L	CAN_L bus line (dominant low)
3	CAN_GND	Ground
4	N/A	No use
5	CAN_SHLD	Optional CAN Shield
6	CAN_GND	Ground
7	CAN_H	CAN_H bus line (dominant high)
8	N/A	No use
9	N/A	No use

Hardware Specifications

Hardware	
CPU	80186, 80 MHz or compatible
SRAM	512 KB
Flash	512 KB (128 KB for system, 384 KB for users' applications), 64 KB for one sector (erase unit), 100,000 erase/write cycles
EEPROM	2 KB (1 KB for system information, 15 KB for users' applications), 40-year data retention, 1 million erase/write cycles
DPRAM	8 KB (1 kB for system, others for users' applications)
NVRAM	31 bytes (battery backup, data valid for up to 10 years)
RTC (Real Time Clock)	Seconds, minutes, hours, date of week, date of month, month and year, valid from 1980 to 2079
Bus Interface	
Type	PCI-104
Board No.	By rotary switch
CAN Interface	
Controller	NXP SJA1000T with 16 MHz clock
Transceiver	NXP 82C250
Channel number	1
Connector	9-pin male D-Sub
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	Jumper for 120 Ω terminator resistor
LED	
LED Indicator	Green LED, red LED (in default firmware: green for Tx/Rx, red for Err)
Power	
Power Consumption	400 mA @ 5 V
Software	
Driver	Windows 2K / XP / 7(x32)
Library	VB 6.0, VC++ 6.0, BCB 6.0, Delphi 4.0
Mechanism	
Dimensions	90mm x 96mm (L X W)
Environment	
Operating Temp.	0 ~ 60 ℃
Storage Temp.	-20 ~ 70 ℃
Humidity	5 ~ 85% RH, non-condensing

Applications



Ordering Information

PCM-CM100-D	Intelligent PCI-104 CAN communication card with one Isolated CAN port and a 9-pin D-Sub male connector