# ICP DAS

## Features

- NMT: Master
- CANopen Version: DS-301 v4.01
- Error Control: Support Guarding protocol
- Support EMCY receiving
- Provide dynamic PDO functions
- Provide 5 sets of SYNC cyclic transmission
- Transmission type of PDO is supported
- Support Multi-Master to Single-Slave architecture
- Auto select with expedition mode or segment mode

# PISO-CPM100-D
## Intelligent CANopen Master PCI CommunicationBoard

## Introduction

The PISO-CPM100 has followed the CiA CANopen specification DS-301 V4.01. With the built-in 80186 80M Hz CPU, this card can be applied in high transmission applications. The 16-bit on-board microcontroller with real-time O.S., MiniOS7, allows many features, such as real-time message transmission and reception, filtering, preprocessing, and storage of CAN messages. It supports the timestamp of PDO message with at least 1 ms precision. Assorted with the free tool (CPM_Utility), users can easily manage and integrate with CANopen industrial devices.
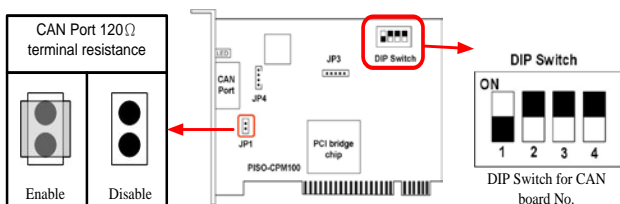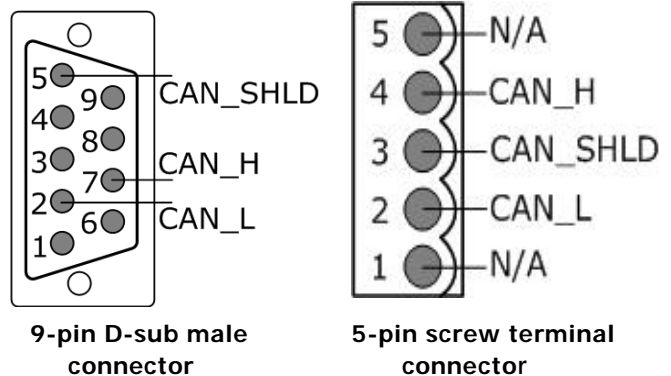
## Design Flowchart
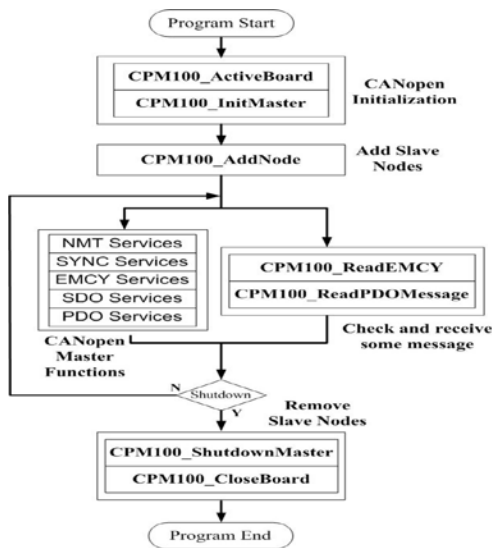


## Utility Features
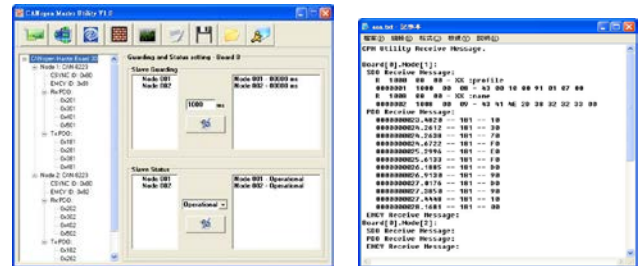


The software utility can easily to access the I/O data of all the slave devices. The users can monitor the input data of the specific slave device and change the output data to the remote slave device with this utility. Besides, the utility also can save the entire message that is received by PISO-CPM100 to a text file to help user to analyze the messages.

## Terminal Resister & DIP Switch



CAN Port 120Ω terminal resistance

Enable    Disable

DIP Switch for CAN board No.

## Pin Assignments



**9-pin D-sub male connector**

CAN_SHLD
CAN_H
CAN_L

**5-pin screw terminal connector**

5 - N/A
4 - CAN_H
3 - CAN_SHLD
2 - CAN_L
1 - N/A

## Specifications

| Hardware | |
|---|---|
| CPU | 80186, 80 MHz or compatible |
| SRAM/Flash/EEPROM | 512 KB / 512 KB / 2 KB |

| Bus Interface | |
|---|---|
| Type | PCI bus, 5 V, 33 MHz, 32-bit, plug and play. |
| Board No. | By DIP switch |

| CAN Interface | | |
|---|---|---|
| Controller | NXP SJA1000T with 16 MHz clock | |
| Transceiver | NXP 82C250 | |
| Channel number | 1 | |
| Connector | 9-pin male D-Sub (CAN_L, CAN_SHLD, CAN_H, N/A for others) | 5-pin screwed terminal block (CAN_L, CAN_SHLD, CAN_H, N/A for others) |
| Baud Rate (bps) | 10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M | |
| Transmission Distance (m) | Depend on baud rate (for example, max. 1000 m at 50 kbps ) | |
| Isolation | 1000 VDC for DC-to-DC, 2500 Vrms for photo-couple | |
| Terminal Resistor | Jumper for 120 Ω terminal resistor | |
| Specification | ISO-11898-2, CAN 2.0A and CAN 2.0B | |
| Protocol | CANopen DS-301 ver4.02, DS-401 ver2.1 | |

| LED | |
|---|---|
| Round LED | Green LED, Red LED |

| Software | |
|---|---|
| Driver | Windows 98/ME/NT/2K/XP. |
| Library | VB 6.0, VC++ 6.0, BCB 6.0. |

| Power | |
|---|---|
| Power supply | Unregulated +10 ~ +30 VDC |
| Power Consumption | 300 mA @ 5 V |

| Mechanism | |
|---|---|
| Dimensions | 127mm x 121mm (W x H) |

| Environment | |
|---|---|
| Operating Temp. | 0 ~ 60 ℃ |
| Storage Temp. | -20 ~ 80 ℃ |
| Humidity | 0 ~ 95% RH, non-condensing |

## Application
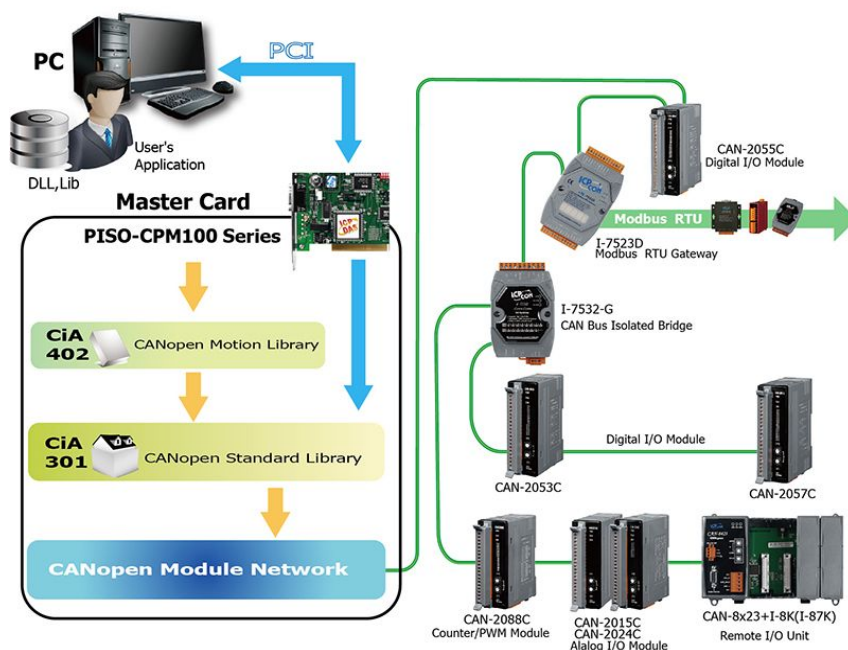


## Ordering Information

| PISO-CPM100-D | CANopen firmware built-in and one standalone intelligence CAN communication port with D-sub 9-pin female connector |
|---|---|