



# CANopen Series Products

## 1 Port Intelligent CANopen Master Board



*PISO-CPM100U-D*



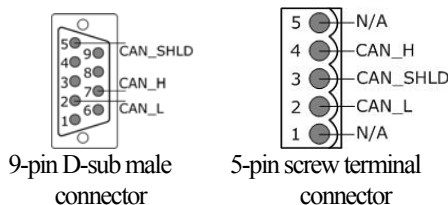
*PISO-CPM100U-T*

The PISO-CPM100U has followed the CiA CANopen specification DS-301 V4.02. 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.

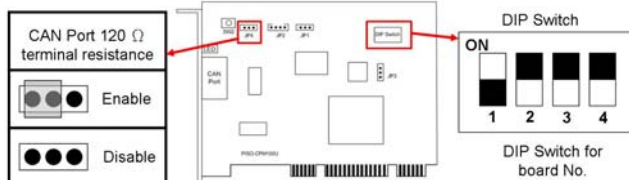
### Features

- NMT: Master
- CANopen Version: DS-301 v4.02
- Error Control: Support Guarding and Heart beat 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
- Support load EDS file
- Support Windows 2K/XP

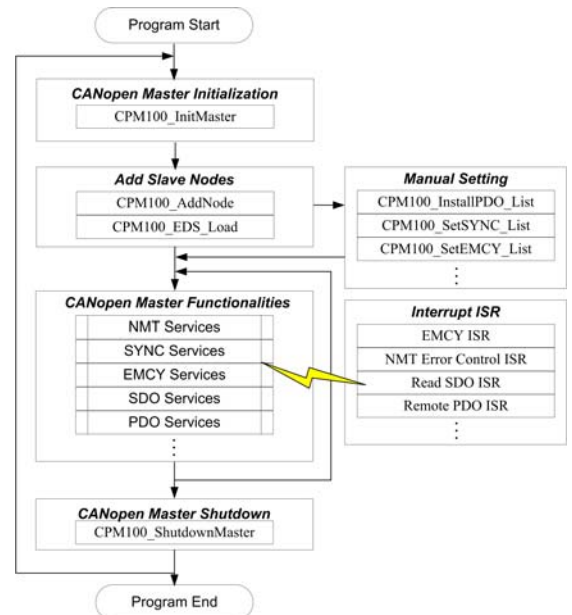
### Pin Assignments



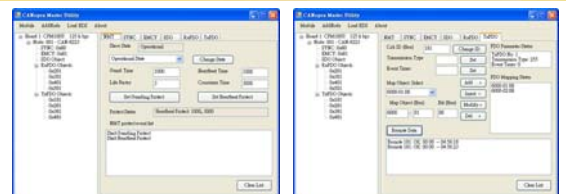
### Terminal Resistor & DIP Switch



### Design Flowchart



### Demos Features

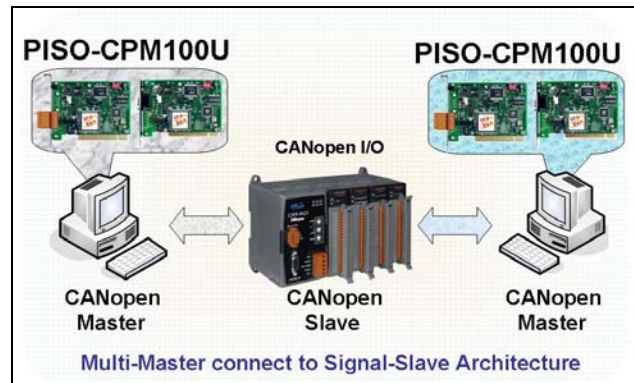


The software utility can easily access the I/O data of all the slave devices. The users can monitor the input data of the specific slave device and change the output data to the remote slave device with this utility.

## Hardware Specifications

| Model Name            | PISO-CPM100U-D  | PISO-CPM100U-T  |
|-----------------------|---|---|
| <b>Hardware</b>       |   |   |
| CPU                   | 80186, 80 MHz or compatible   |   |
| SRAM/Flash/EEPROM     | 512 KB / 512 KB / 2 KB  |   |
| <b>Bus Interface</b>  |   |   |
| Type                  | Universal PCI supports both 5 V and 3.3 V PCI bus                         |   |
| Board No.             | By DIP switch   |   |
| <b>CAN Interface</b>  |   |   |
| Controller            | NXP SJA1000T with 16 MHz clock<br>Microprocessor inside with 80186 80 MHz |   |
| 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 | Depend on baud rate (for example, max. 1000 m at 50 kbps)                 |   |
| Isolation             | 3000 V <sub>DC</sub> for DC-to-DC, 2500 V <sub>rms</sub> for photo-couple |   |
| Terminator Resistor   | Jumper for 120 Ω terminator resistor                                      |   |
| Specification         | ISO-11898-2, CAN 2.0A and CAN 2.0B  |   |
| Protocol              | CANopen DS-301 ver4.02, DS-401 ver2.1                                     |   |
| <b>LED</b>            |   |   |
| Round LED             | Green LED, Red LED  |   |
| <b>Software</b>       |   |   |
| Driver                | Windows 2K/XP   |   |
| Library               | VB 6.0, VC++ 6.0, BCB 6.0   |   |
| <b>Power</b>          |   |   |
| Power Consumption     | 300 mA @ 5 V  |   |
| <b>Mechanism</b>      |   |   |
| Dimensions            | 138 mm x 22mm x 105 mm (W x L x H)  |   |
| <b>Environment</b>    |   |   |
| Operating Temp.       | 0 ~ 60 °C   |   |
| Storage Temp.         | -20 ~ 70 °C   |   |
| Humidity              | 5 ~ 85% RH, non-condensing  |   |

## Application



## Ordering Information

|                       |  |
|-----------------------|--|
| <b>PISO-CPM100U-D</b> | 1 Port Intelligent CANopen Master Universal PCI Board for D-sub 9-pin male connector     |
| <b>PISO-CPM100U-T</b> | 1 Port Intelligent CANopen Master Universal PCI Board for 5-pin screw terminal connector |