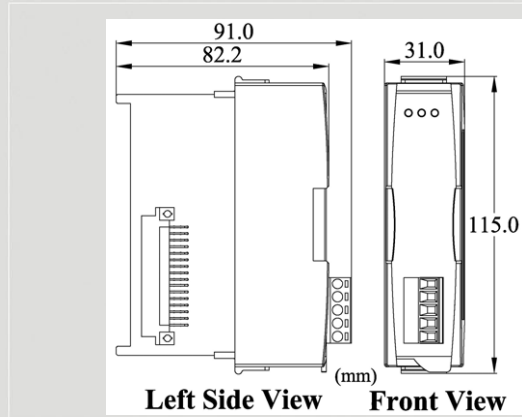


Standalone CANopen Master Module



I-87123



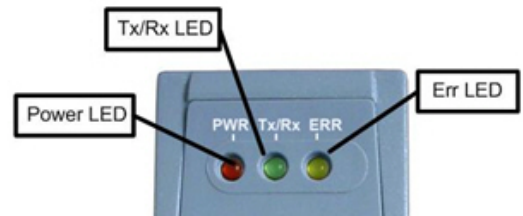
Dimensions

The I-87123 was developed as a standardized embedded network with highly flexible configuration capabilities. It provides standardized communication objects for real-time data (Process Data Objects, PDO), configuration data (Service Data Objects, SDO), network management data (NMT message, and Error Control), and special functions (Time Stamp, Sync message, and Emergency message). Nowadays, CANopen is used in many various application fields, such as medical equipment, off-road vehicles, maritime electronics, public transportation, building automation and etc.

Features

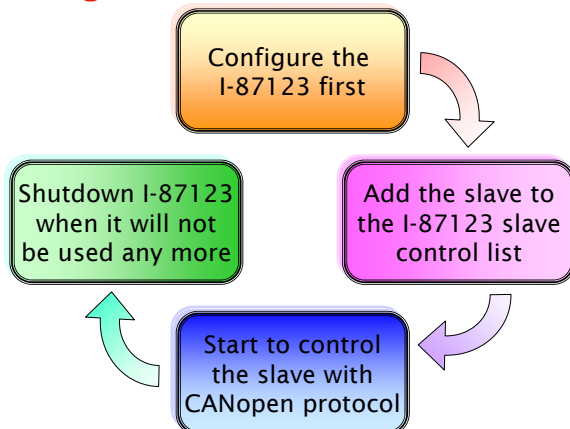
- NMT: Master
- CANopen Version: DS-301 v4.01
- Error Control: Support Guarding protocol
- Support EMCY receiving
- Provide dynamic PDO functions
- Support SYNC protocol
- Transmission type of PDO is supported
- Support SDO download/upload segment protocol
- 256 records CANopen message reception buffer
- CAN, ERR, and Tx/Rx LED indicator
- Support I-8000 and WinCon-8000 series MCU

LED Indicators



LED.	Description
PWR	Indicate power status
Tx/Rx	Indicate CAN messages transmission
ERR	Indicate the error status

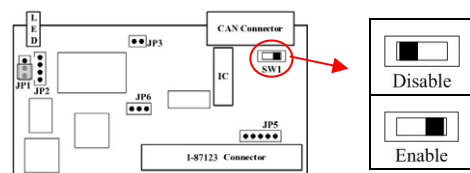
Design Flowchart



Pin Assignments

Pin No.	Description
1	No use
2	CAN high bus line
3	CAN Shield
4	CAN low bus line
5	No use

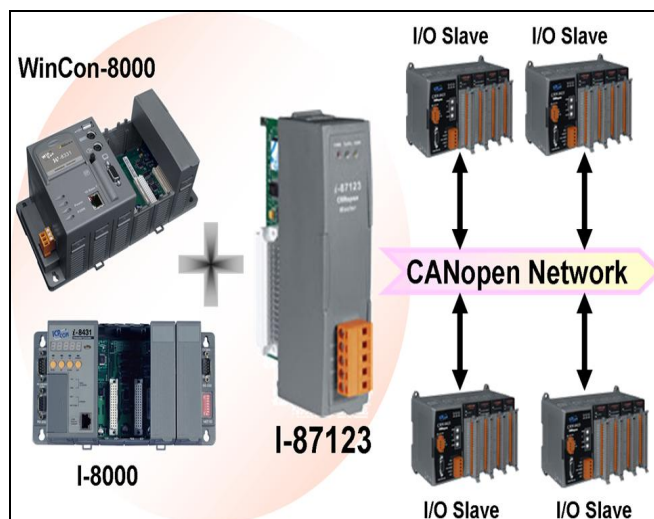
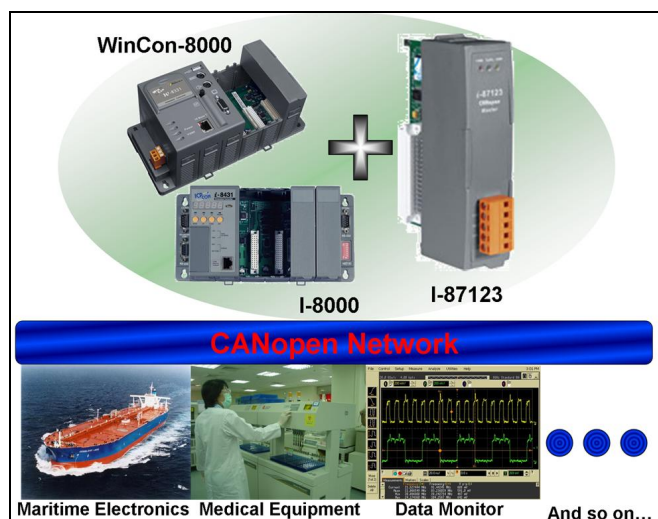
Terminal Resistor Switch



Hardware Specifications

Item	I-87123
CPU	80186, 80MHz
SRAM	512K bytes
Flash Memory	512K bytes
EEPROM	2048 bytes
Watch Dog Timer	CPU Built-in
CAN Controller	Phillips SJA1000T CAN Controller
CAN Transceiver	Phillips 82C250 CAN Transceiver
CAN Interface	ISO/IS 11898-2, 5-pin screw terminal connector
Specific	Follow CiA DS-301 V4.01 and support CiA DS-401
Transfer Rate	Support 10K, 20K, 50K, 125K, 250K, 500K, 800K, 1M bps
Slave number	Each Port support maximum nodes up to 127
Library	Provide C/C++ function libraries to process CANopen messages
Buffer Size	256 records CANopen message receive buffer size
Communication	Support NMT/EMCY/SYNC/SDO/PDO/Error Control protocols
Isolated	2500Vrms photo-couple isolation on CAN bus
Terminal Resister	120Ω terminal resister selected by switch
Development	I-8000 and WinCon series MCU
LEDs	Power LED, Tx/Rx LED, Error LED
Power Supply	2W unregulated +10Vdc to +30Vdc
Operating Temp.	-25°C to 75°C
Storage Temp.	-30°C to 85°C
Humidity	5~95%
Dimensions	31mm x 91mm x 115mm (W x D x H)

Applications



Ordering Information

I-87123	Module with one CANopen CAN port, I-8000/Wincon CANopen master library, 80186 80MHz CPU, 512K flash, 512K SRAM, 120Ω terminal resister selected by jumper.
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