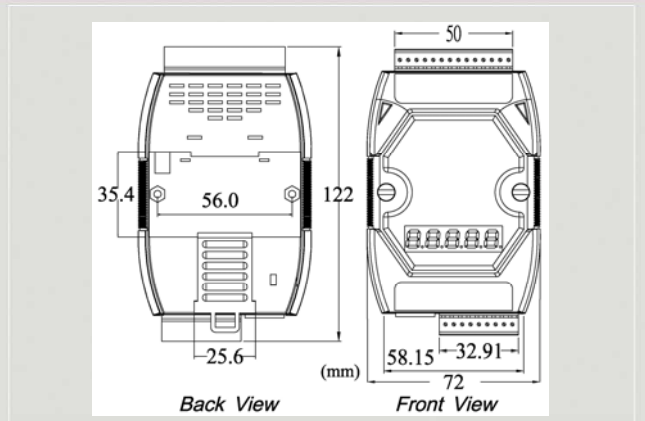# CANopen Series Products

Modbus TCP Server/RTU Slave to CANopen Master Gateway

RoHS CE FC

GW-7433D

Dimensions

The GW-7433D is a solution that provides a communication transformation between CANopen protocol and Modbus/TCP protocol. It solves a mission-critical problem: connecting an existed CANopen network with Ethernet-base master device as long as this master device supports Modbus/TCP protocol. It enables CANopen networks to be coupled together with the Internet/Ethernet, whereby remote monitoring and controlling is achieved.
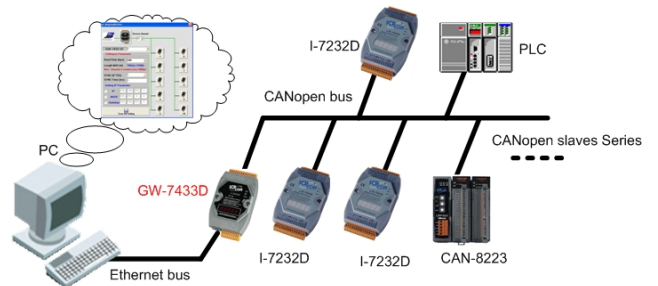
Features

- Communication with CANopen slave automatically when GW-7433D boots up.
- CANopen Version: DS-301 v4.02
- Device Profile: DSP-401 v2.0
- Support on-line configure CANopen Slave parameters.
- Support 50 TxPDOs, 50 RxPDOs and 15 SDOs.
- Support Max 10 CANopen Slave modules
- MI, CI, and Err indicators
- Allow 5 Modbus TCP master to access GW-7433D simultaneously.
- Support 5-digits 7-Segment LEDs show information.
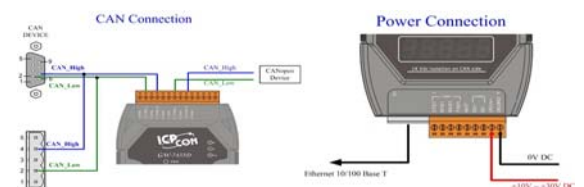
Modbus TCP Command Support

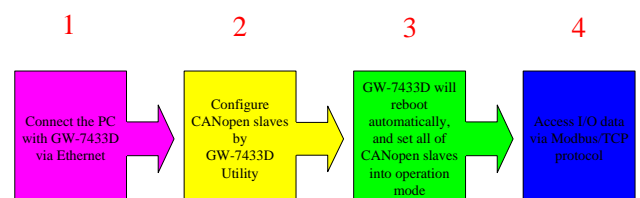| Function code.	Description
01 (0x01)	Read Coil Status
02 (0x02)	Read Input Status
03 (0x03)	Read Holding Registers
04 (0x04)	Read input Registers
05 (0x05)	Force Single Coils
06 (0x06)	Preset Single Register
15 (0x0F)	Force Multi Coils
16 (0x10)	Preset Multi Registers

Utility Features

- Add/remove CANopen slaves via Ethernet
- Get/Set Modbus/TCP input/output memory address
- Display CANopen I/O mapping table
- Add/remove CANopen slaves via Ethernet

Pin Assignments

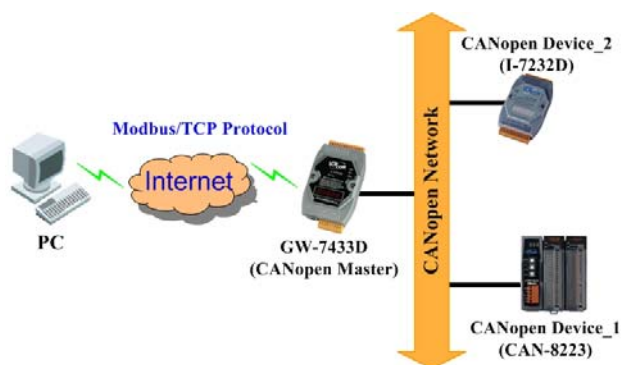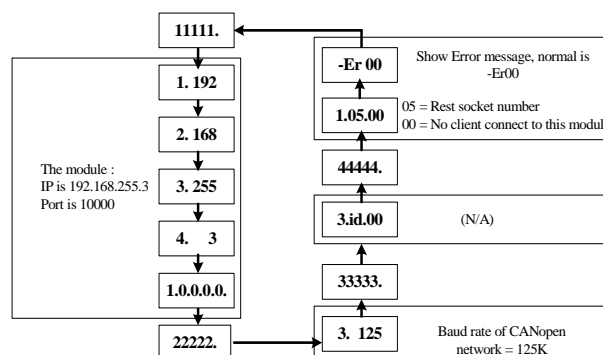

Design Flowchart

1. Connect the PC with GW-7433D via Ethernet
2. Configure CANopen slaves by GW-7433D Utility
3. GW-7433D will reboot automatically, and set all of CANopen slaves into operation mode
4. Access I/O data via Modbus/TCP protocol

Hardware Specifications

Hardware	
CPU	80186, 80 MHz or compatible
Watchdog	Watchdog IC
CAN Interface	
Controller	NXP SJA1000T with 16 MHz clock
Transceiver	NXP 82C250
Connector	5-pin screwed terminal block (CAN_L, CAN_SHLD, CAN_H, N/A for others)
Isolation	1000 V_{DC} for DC-to-DC, 2500 Vrms for photo-couple
Protocol	CANopen DS-301 ver4.02, DS-401 ver2.1
UART Interface	
COM 1	RS-232
COM 1 Connector	5-pin screwed terminal block (TxD, RxD, RTS, CTS, GND)
COM 2	RS-485 (Self-turner inside)
COM 2 Connector	2-pin screwed terminal block (DATA+, DATA-)
Protocol	Modbus RTU
Ethernet Interface	
Controller	10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX)
Connector	RJ-45 with LED indicator
Protocol	Modbus TCP
Power	
Power supply	Unregulated +10 ~ +30 V_{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	2.5 W
Mechanism	
Dimensions	72mm x 33mm x 122mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 ℃
Storage Temp.	-40 ~ 80 ℃
Humidity	5 ~ 95% RH, non-condensing

Application

5-digit 7-Segment LED Display

LED indicators

LED	Description
MI	The led provides the Modbus/TCP protocol is act or not
CI	This led indicates the CANopen communication status of the module
ERR	This led indicates the CANopen status of the GW-7433D

Ordering Information

GW-7433D CR	Modbus TCP Slave/CANopen Master Gateway (RoHS)