



GW-7553-CPM GW-7553M-CPM-M
PROFIBUS to CANopen Gateway

Introduction

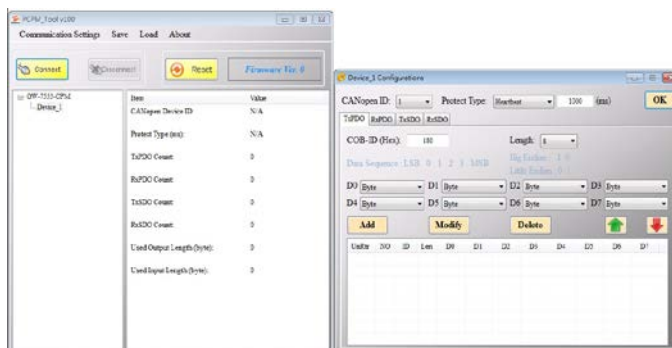
The GW-7553-CPM Gateway is specially designed for the slave device of PROFIBUS DP protocol. It allows the PROFIBUS master to access the CANopen slave devices. We also provide the utility software for users to configure the GW-7553-CPM. By using this module, users can put their CANopen devices into PROFIBUS network very easily.

CANopen Command Support

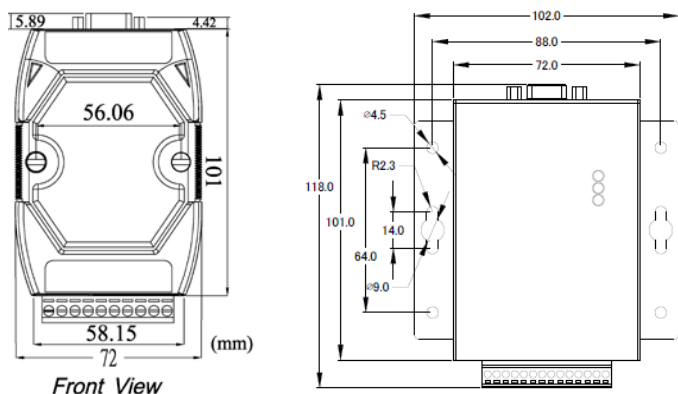
Communication object	COB-ID(s) hex	Slave nodes
NMT node control	000	Receive only
Sync	080	Receive only
Emergency	080 + NodeID	Transmit
PDO	180 + NodeID	1. Transmit PDO
	200 + NodeID	1. Receive PDO
	280 + NodeID	2. Transmit PDO
	300 + NodeID	2. Receive PDO
	380 + NodeID	3. Transmit PDO
	400 + NodeID	3. Receive PDO
SDO	480 + NodeID	4. Transmit PDO
	500 + NodeID	4. Receive PDO
NMT node monitoring (guarding/heartbeat)	580 + NodeID	Transmit
	600 + NodeID	Receive
	700 + NodeID	Transmit

Utility

- Add/remove CANopen slaves via RS-232
- Show diagnostic messages
- Provide test function for CANopen slave devices



Dimensions (Units: mm)



Pin Assignments



Features

- Protocol & Hierarchy: DP-V0 Slave
- Detect transmission rate (9.6 ~ 12000 kbps) automatically
- 240 bytes max input data length
- 240 bytes max output data length
- Follow the CiA CANopen Standard DS-301 v4.02
- Support Node Guarding and Heartbeat Consumer protocol
- Support 110 CANopen SDO/PDO commands
- Support 4 data types: Boolean · Byte · Word · 4-byte
- 3000 VDC isolation protection on PROFIBUS side
- 4 kV ESD Protection



Hardware Specifications

Hardware	
CPU	80186, 80 MHz or compatible
SRAM/Flash/EEPROM	512 KB / 512 KB / 16 KB
Watchdog	Watchdog IC CPU built-in
ESD Protection	4 kV class A
PROFIBUS Interface	
Controller	Profichip VPC3+C
Transceiver	ADI ADM2486
Connector	9-pin female D-Sub
Baud Rate (bps)	9.6 k, 19.2 k, 45.45 k, 93.75 k, 187.5 k, 500 k, 1.5 M, 3 M, 6 M, 12 M
Transmission Distance (m)	Depend on baud rate (for example, max. 1200 m at 9.6 kbps)
Isolation	3000 V _{DC} for DC-to-DC, 2500 V _{rms} for bus-to-logic
Protocol	DP-V0
CAN Interface	
Controller	NXP SJA1000T with 16 MHz clock
Connector	3-pin screwed terminal block (CAN_L, CAN_H, CAN_GND)
Isolation	1000 V _{DC} for DC-to-DC, 2500 V _{rms} for photo-couple
Protocol	CANopen DS-301 ver4.02
UART Interface	
COM	RS-232 (For updating firmware and configuration)
COM Connector	3-pin screwed terminal block (RxD, TxD, GND)
Baud Rate (bps)	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Data bit	7, 8
Stop bit	1, 2
Parity	None, Even, Odd
LED	
Round LED	PWR LED, RUN LED, ERR LED
Power	
Power supply	Unregulated +10 ~ +30 V _{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	2.5 W
Mechanism	
Installation	DIN-Rail
Dimensions	72 mm x 33 mm x 119 mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75°C
Storage Temp.	-30 ~ 85°C
Humidity	5 ~ 95% RH, non-condensing

Application



Ordering Information

GW-7553-CPM CR	PROFIBUS to CANopen Gateway (RoHS)
GW-7553-CPM-M CR	PROFIBUS to CANopen Gateway (RoHS) with Metal casing