ICP DAS

CAN-2084C
4/8-channel Counter/Frequency CANopen Slave

Features

- NMT Slave
- 8-channel isolated/non-isolated input
- Provide 5 Counter modes
- Provide default EDS file
- ESD Protection 4KV Contact for each channel
- Support Power supply 10 ~30 V_{DC}
- Support CiA-301 v4.02, CiA-401 v2.1
- Support PDO Mapping

RoHS

Introduction

CAN-2084C module follows the CiA-301 version 4.02. You can access the digital I/O status and set the configuration by using standard CANopen protocol. CAN-2084C has passed the validation of the CIA CANopen Conformance Test tool. Therefore, you can use it with standard CANopen master easily by applying the EDS file. CAN-2084C is a high-speed Counter/Frequency module that provide "Up Counter", "Frequency", "Up/Down Counter", "Dir/Pulse Counter" and "A/B Phase Counter" modes. It can be used to various applications. By owing to the CANopen masters of ICP DAS, you can quickly build a CANopen network to approach your requirement..
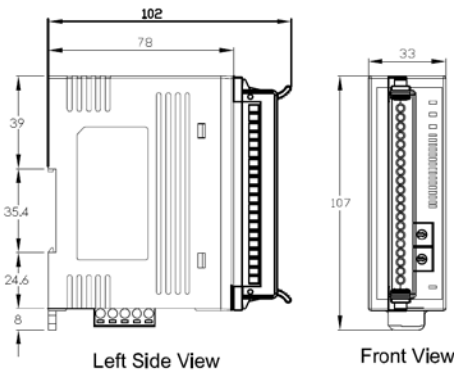
Internal I/O Structure
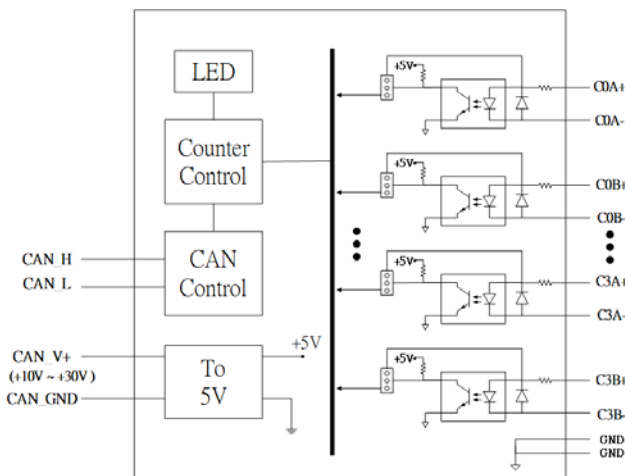
I/O Pin & Wire Connection

Terminal No.	Pin Assignment
01	C0A+
02	C0A-
03	C0B+
04	C0B-
05	C1A+
06	C1A-
07	C1B+
08	C1B-
09	C2A+
10	C2A-
11	C2B+
12	C2B-
13	C3A+
14	C3A-
15	C3B+
16	C3B-
17	GND
18	GND
19	N.C
20	N.C

Input Mode	Isolated	Non-isolated
Dir/Pulse	Vin+ (Pulse) → CxA+ / Vin- (Pulse) → CxA- / Vin+ (Dir) → CxB+ / Vin- (Dir) → CxB-	Vin+ (Pulse) → CxA+ / Vin+ (Dir) → CxB+ / Vin- (Pulse) and Vin- (Dir) → GND
Up/Down	Vin+ (Up) → CxA+ / Vin- (Up) → CxA- / Vin+ (Down) → CxB+ / Vin- (Down) → CxB-	Vin+ (Up) → CxA+ / Vin+ (Down) → CxB+ / Vin- (Up) and Vin- (Down) → GND
Up	Vin+ (Up0) → CxA+ / Vin- (Up0) → CxA- / Vin+ (Up1) → CxB+ / Vin- (Up1) → CxB-	Vin+ (Up0) → CxA+ / Vin+ (Up1) → CxB+ / Vin- (Up0) and Vin- (Up1) → GND
A/B Phase (Quadrant)	Vin+ (A0) → CxA+ / Vin- (A0) → CxA- / Vin+ (B0) → CxB+ / Vin- (B0) → CxB-	Vin+ (A0) → CxA+ / Vin+ (B0) → CxB+ / Vin- (A0) and Vin- (B0) → GND
Frequency	Vin+ (Freq0) → CxA+ / Vin- (Freq0) → CxA- / Vin+ (Freq1) → CxB+ / Vin- (Freq1) → CxB-	Vin+ (Freq0) → CxA+ / Vin+ (Freq1) → CxB+ / Vin- (Freq0) and Vin- (Freq1) → GND

Jumper	Counter	Jumper setting
JP1	A0	
JP2	B0	
JP3	A1	Isolated input (Default)
JP4	B1	
JP5	A2	Non-isolated input (TTL input)
JP6	B2	
JP7	A3	
JP8	B3	

Dimensions

Left Side View   Front View

CAN Pin & Baud Rate Rotary

CAN_V+ — Pin 5
CAN_L — Pin 4
CAN_Shield — Pin 3
CAN_L — Pin 2
CAN_GND — Pin 1

Baud rate rotary switch
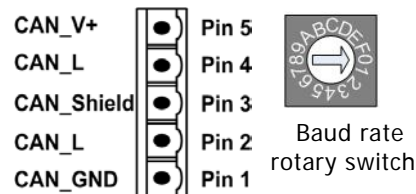
Switch Value	Baud Rate
0	10 kbps
1	20 kbps
2	50 kbps
3	125 kbps
4	250 kbps
5	500 kbps
6	800 kbps
7	1000 kbps

Specifications

CAN Interface	
Connector	5-pin screwed terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+)
Baud Rate (bps)	10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1M
Terminal Resistor	Switch for 120 Ω terminal resistor
Node ID	1~99 selected by rotary switch
Protocol	CANopen CiA-301 ver4.02, CiA-401 ver2.1
No. of PDOs	10 Rx, 10Tx (Support Dynamic PDO)
PDO Mode	Event Triggered, Remotely requested, Cyclic and acyclic SYNC
Digital Input	
Channels	4/8
Mode	4-channel Up/Down Counter (Up/Down)
Isolated Input	Logic Level 0: +1 V Max.
TTL Input	Logic Level 0: 0 to +0.8 V
ESD protection	4kV contact for each channel
LED	
Round LED	PWR LED, RUN LED, ERR LED
Alarm LED	8 LEDs for DI, and 1 LED as terminal resister indicator
Power	
Input range	Unregulated +10 ~ +30 V_{DC}
Power Consumption	1.5 W
Mechanism	
Dimensions	33 mm x 99 mm x 78 mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 ℃
Storage Temp.	-30 ~ 80 ℃
Humidity	10 ~ 90% RH, non-condensing

Application
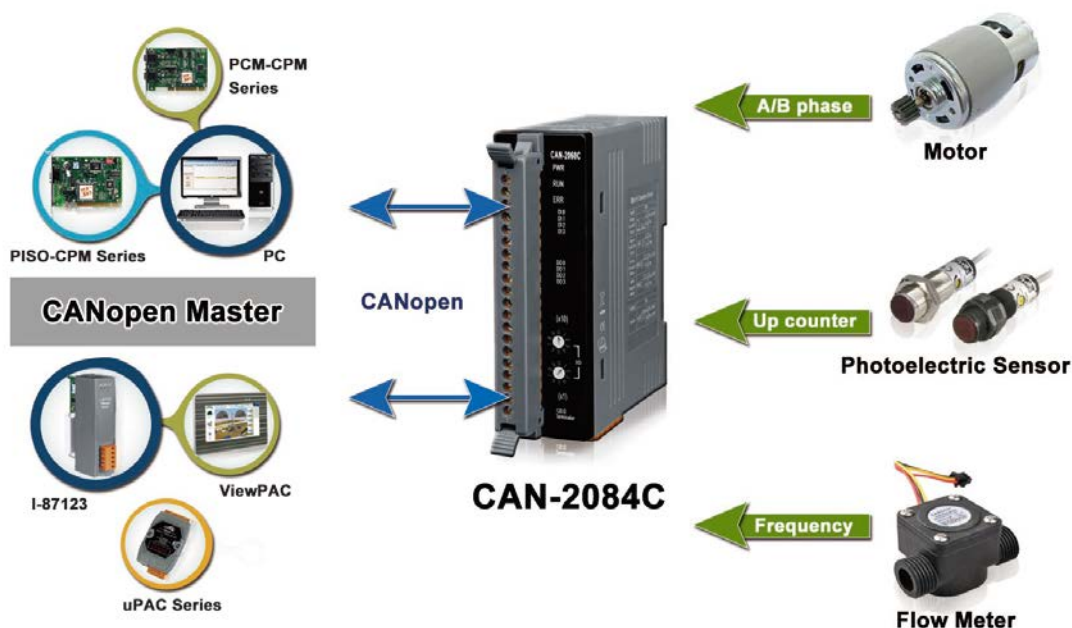
Ordering Information

CAN-2084C	CANopen module of 4/8- channel Counter/Frequency