



I-8088W

8-ch Isolated DI and 8-ch PWM Output Module

Features

- Automatic generation of PWM outputs by hardware, without software intervention
- 10 Hz ~ 500 kHz (non-continuous) PWM output frequency with 0.1% ~ 99.9% duty cycle
- Software and hardware trigger mode for PWM output
- Individual and synchronous PWM output
- Using software trigger mode, you can set configuration for all PWM channels then trigger them one by one or all of them at the same time
- Burst mode PWM operation for standby
- Digital Input channel can be configured as simple digital input channel or hardware trigger source of the PWM output



Introduction

PWM (Pulse width modulation) is a powerful technique for controlling analog circuits. It uses digital outputs to generate a waveform with variant duty cycle and frequency to control analog circuits. I-8088W has 8 PWM output channels and 8 digital inputs. It can be used to develop powerful and cost effective analog control system.



System Specifications

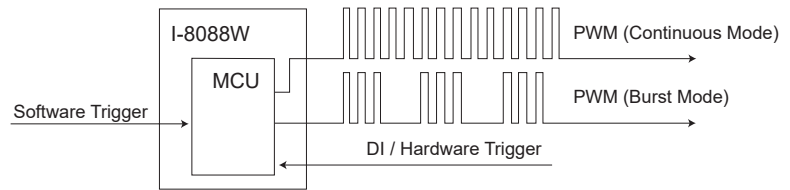
LED Indicators	
System LED Indicator	1
I/O LED Indicator	8
Isolation	
Intra-module Isolation, Field-to-Logic	3750 Vrms
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal
Power	
Consumption	40 mA @ 5 V, 2 W ±5%
Mechanical	
Dimensions (W x L x H)	30 mm × 115 mm × 102 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +85 °C
Humidity	5 ~ 95 % RH, Non-condensing

I/O Specifications

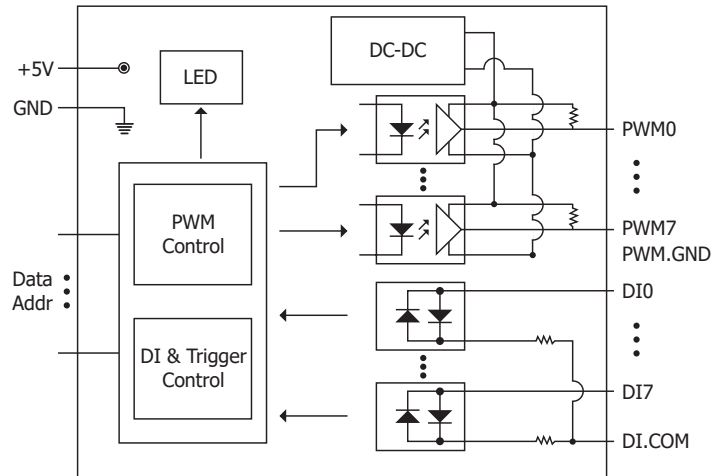
PWM Output	
Channels	8
Type	TTL
Sink/Source (NPN/PNP)	Source
Scaling Resolution	16-bit (1 ~128 μs for each step)
Frequency Range	10 ~ 500 kHz (non-continuous)
Duty Cycle	0.1 ~ 99.9%
PWM Mode	Burst Counting, Continuous mode
Burst Count	1 ~ 65535
Trigger Start	Trigger Start & Trigger Stop
Max Load Current	1 mA
Digital Input	
Channels	8
Type	Wet, One Common for All Digital Input
Sink/Source (NPN/PNP)	Sink/Source
On Voltage Level	+5 ~ +30 VDC
Off Voltage Level	< 0.8 VDC
Input Impedance	4.7 kΩ, 1/4 W

Applications

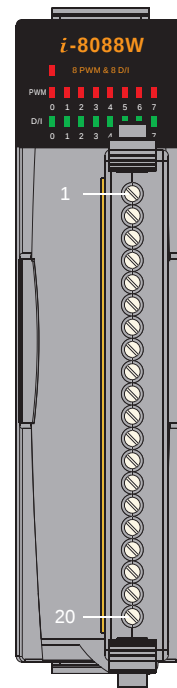
- Controlling the position/speed of motors
- Dimming the brightness of lamps
- Controlling the speed of fans



Internal I/O Structure



Pin Assignments

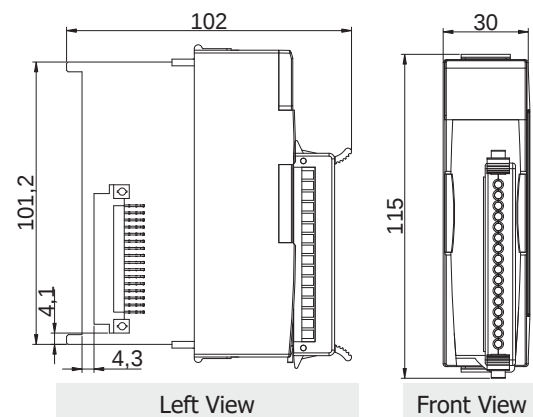


Terminal No.	Pin Assignment
01	PWM0
02	PWM1
03	PWM2
04	PWM3
05	PWM4
06	PWM5
07	PWM6
08	PWM7
09	PWM.GND
10	PWM.GND
11	DI0
12	DI1
13	DI2
14	DI3
15	DI4
16	DI5
17	DI6
18	DI7
19	DI.COM
20	DI.COM

Wire Connections

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay	Relay ON 	Relay OFF
Resistance Load		
Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Relay Contact	Relay ON 	Relay OFF
TTL/CMOS Logic	Voltage > 5V 	Voltage < 0.8V
NPN Output	Open Collector ON 	Open Collector OFF
PNP Output	Open Collector ON 	Open Collector OFF

Dimensions (Unit: mm)



Accessories



8-channel Digital Output and 8-channel Counter Input Board, including a DB-8820 Daughterboard and a CA-2520D Cable.

Ordering Information

I-8088-G CR	8-channel PWM Output And 8-Channel isolated DI Module (RoHS)
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