



I-8091

2-axis Stepping/Servo Motor Control Module



I-8091-G

Features

- 2-axis Independent, Simultaneous Stepping Motor Control/ Servo Motor Control (Pulse Input Type)
- Maximum Pulse Rate: 1 Mpps
- Maximum Step Counts: $2^{32} - 1$ Steps
- Command Type Interface
- 2-axis Linear, 2-axis Circular Interpolation
- Automatic Trapezoidal Acceleration/Deceleration
- Output Pulse modes: CW/CCW or Pulse/Direction
- Output Polarity can be Programmable
- 3 Optical Isolated Digital Inputs per Axis for Limit Switches
- Programmable Limit Switch Initial Condition as Normal Open (N.O.) or Normal Close (N.C.)



Introduction

I-8091 stepping motor control card is a micro-computer controlled, 2-axis pulse generation card. It includes a 2K bytes FIFO to receive motion command from host. A micro-computer for profile generation and protection, 2-axis DDA chip to execute DDA function when interpolation command is used, 2500 VDC optical isolation inserted for industrial application.

System Specifications

LED Indicators/Display	
System LED Indicators	1 as Power Indicator
I/O LED Indicators	7 as Status Indicator
Isolation	
Intra-module Isolation, Field-to-Logic	2500 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
Power	
Power Consumption	3.9 W max.
Mechanical	
Dimensions (W × L × H)	31 mm x 114 mm x 66 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 90% RH, Non-condensing

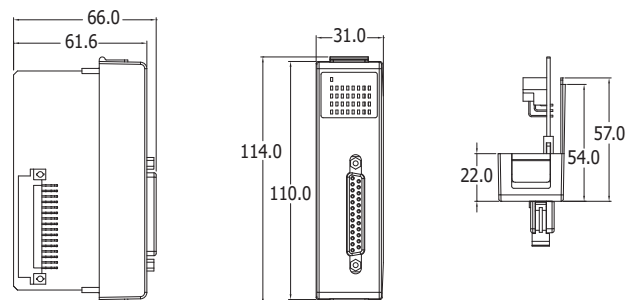
I/O Specifications

Motor Output	
No. of Axes	2-axis
Step Frequency	1 Mpps
Output Pulse Mode	1. CW/CCW 2. Pulse/Direction
Maximum Step Counts	$2^{32} - 1$ steps
Limit Switches	3 optical isolated inputs per axis
Interpolation Command	2-axis linear, 2-axis circular

Applications

- X-Y Table
- Fix-Pitch Stamping Machine
- Transfer Machine
- Spinner
- Loader/Unloader

Dimensions (Units: mm)

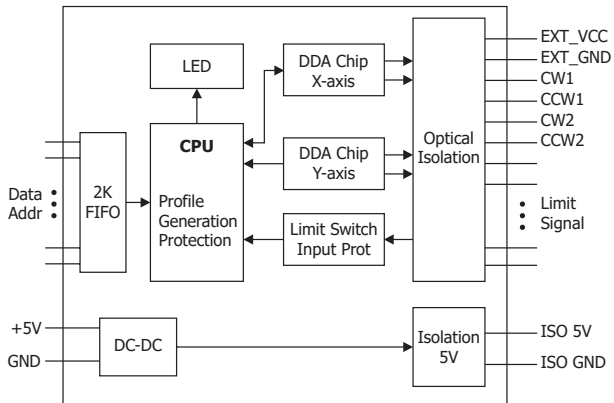


Left View

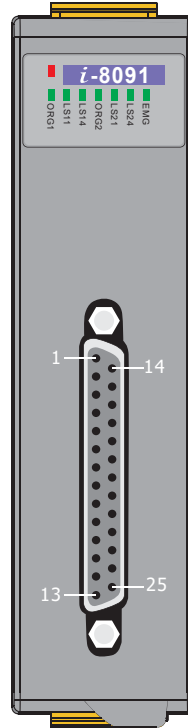
Front View

Top View

Internal I/O Structure



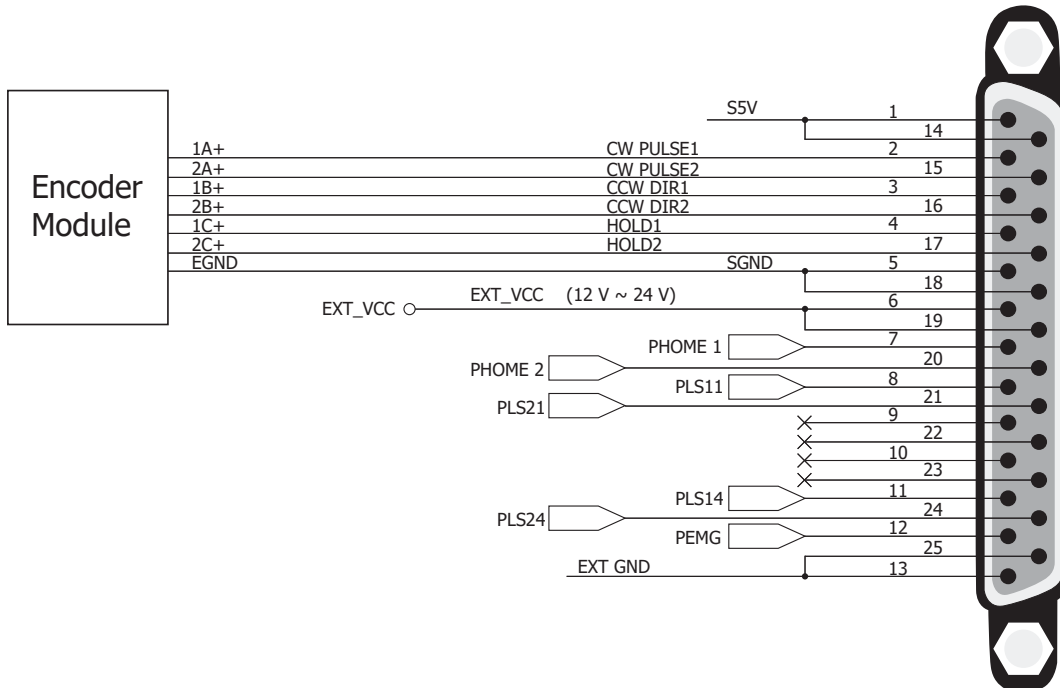
Pin Assignments



Pin Assignment	Terminal No.	Pin Assignment
+5V	01	14 +5V
CW_PULSE1	02	15 CW_PULSE2
CCW_DIR1	03	16 CCW_DIR2
HOLD1	04	17 HOLD2
GND	05	18 GND
EXT_VCC	06	19 EXT_VCC
/ORG1	07	20 /ORG2
/LS11	08	21 /LS21
NO USE	09	22 NO USE
NO USE	10	23 NO USE
/LS14	11	24 /LS24
/EMG	12	25 EXT_GND
EXT_GND	13	

25-pin Female D-Sub Connector

Wire Connections



Ordering Information

I-8091 CR	2-axis Stepping/Servo Motor Control Module (Blue Cover) (RoHS) Includes CA-PC25M (DB25 connector Male with plastic cover)
I-8091-G CR	2-axis Stepping/Servo Motor Control Module (Gray Cover) (RoHS) Includes CA-PC25M (DB25 connector Male with plastic cover)

Accessories

<p>DN-25 CR</p>	<p>25/9 pin D-sub I/O Connector Block (Pitch = 5.08 mm) with DIN-rail Mounting (RoHS) Include: CA-0920 (DB9 (Male) to DB9 (Male) Cable [RS-232; Pin1-Pin9], 2 M) and CA-2520 (DB25 Male to Male, 45°, 2 M)</p>
-----------------	--