

# DAUGHTER BOARD USER GUIDE



*for DB-16P16R*

English/ Dec. 2010/ Version 1.0

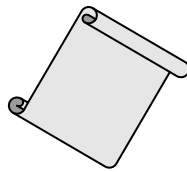
## 1

### What's in the shipping package?

- One DB-16P16R Daughter Board
- One User Guide (This document)
- One CA-3710D Cable



DB-16P16R



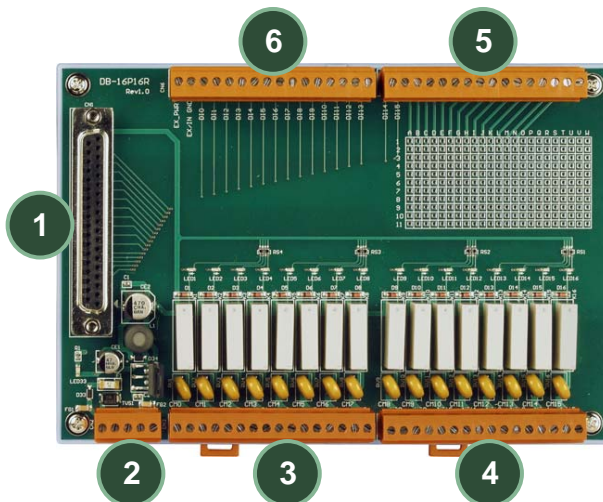
User Guide



CA-3710D

## 2

### Layout



1 CN1 for PISO-P32C32/ISO-P32C32

2 CN2 for Power supply + 12 ~ 30 V<sub>DC</sub>

3 CN3 for Relay output CH0 ~ Ch7

4 CN4 for Relay output CH8 ~ Ch15

5 CN5 for D/I CH14 ~ Ch15

6 CN6 for D/I CH0 ~ Ch13

# 3 Features

- 16 Form A Relays
- 37-pin D-sub connector to quickly link to a PISO-P32C32 or ISO-P32C32
- 16 LEDs to display the state of individual relays
- Screw terminals for field wiring
- Power Input: +12 ~ +30 V<sub>DC</sub>
- Operating temperatures: -25 ~ +75°C
- DIN-Rail mounting for industrial usage

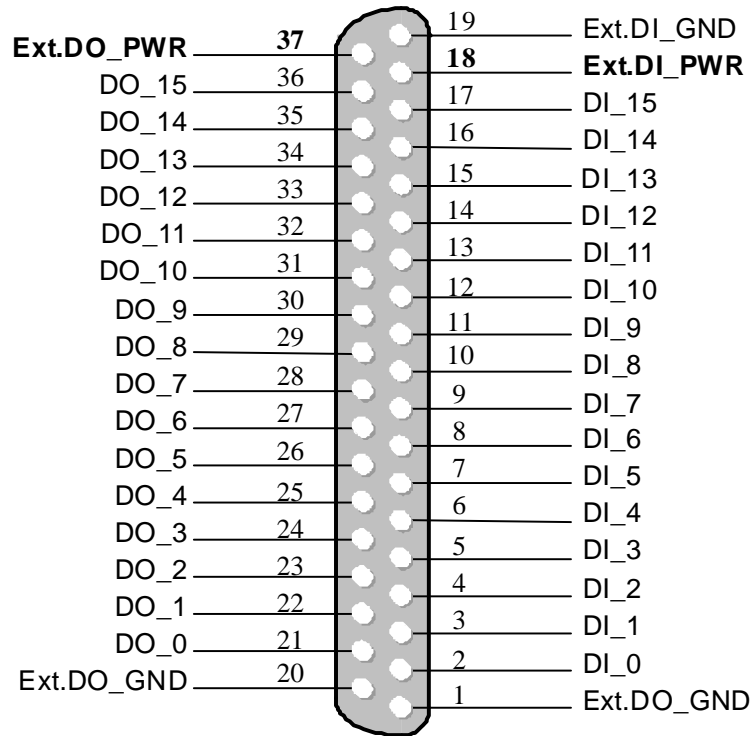
# 4 Specifications

Digital Input	
Channels	16
Type	Pin-to-pin terminals
Input Range	Depending on PCI/ISA card used
Relay Output	
Channels	32
Contact Arrangement	SPST-NO (1 Form A)
Max. Switching Voltage	125 V <sub>DC</sub> , 270 V <sub>AC</sub> Rated
Contact Current	3 A
Max. Contact Current	5 A
Max. Contact Capacity	1250 VA, 150 W
Operate Time (typical)	10 ms
Release Time (typical)	10 ms
Electrical Life (Resistive Load)	250 V <sub>AC</sub> /30 V <sub>DC</sub> , 3 A 100,000 ops. Min. (10 ops./minute) 250 V <sub>AC</sub> /30 V <sub>DC</sub> , 5 A 6,000 ops. Min. (10 ops./minute)
Mechanical Life	20,000,000 ops. at no load. (300 ops./minute)
Mechanical	
Dimensions	118 mm x 174 mm
Installation	DIN-Rail mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10% ~ 90%, non-condensing
Power Requirements	
Power Input	+12 ~ 30 V <sub>DC</sub>
Power Consumption	0.25 A @ +24 V Max.

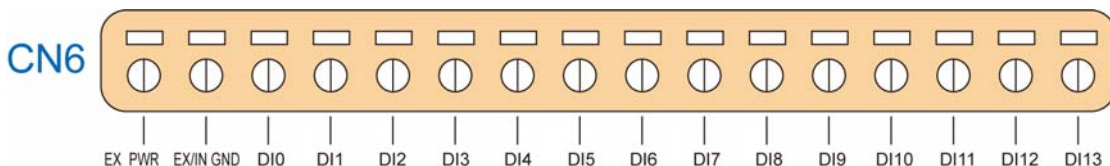
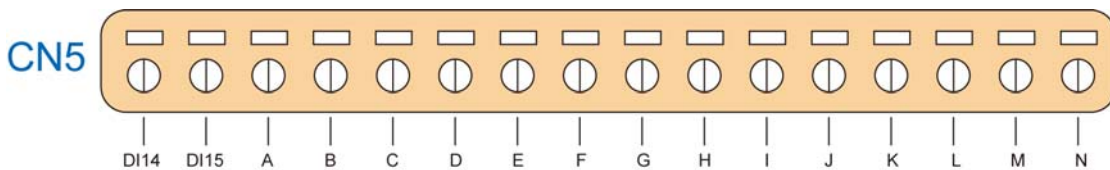
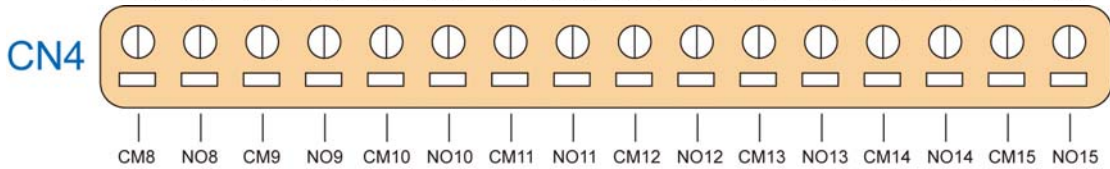
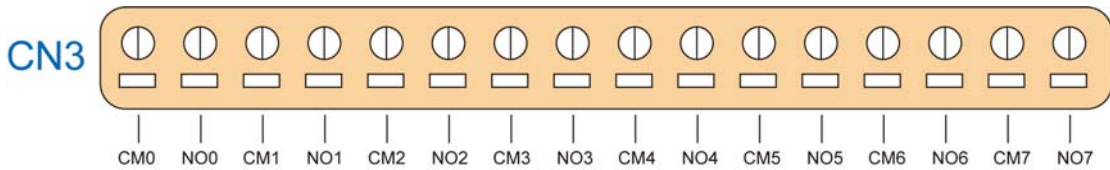
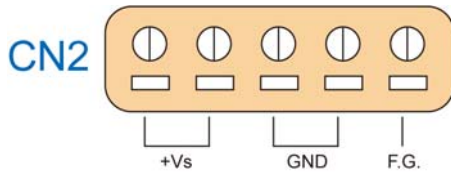
# 5

## Pin Assignments

- CN1: 37-pin D-sub connector for a PISO-P32C32 or ISO-P32C32.



- Connectors CN2~CN6.



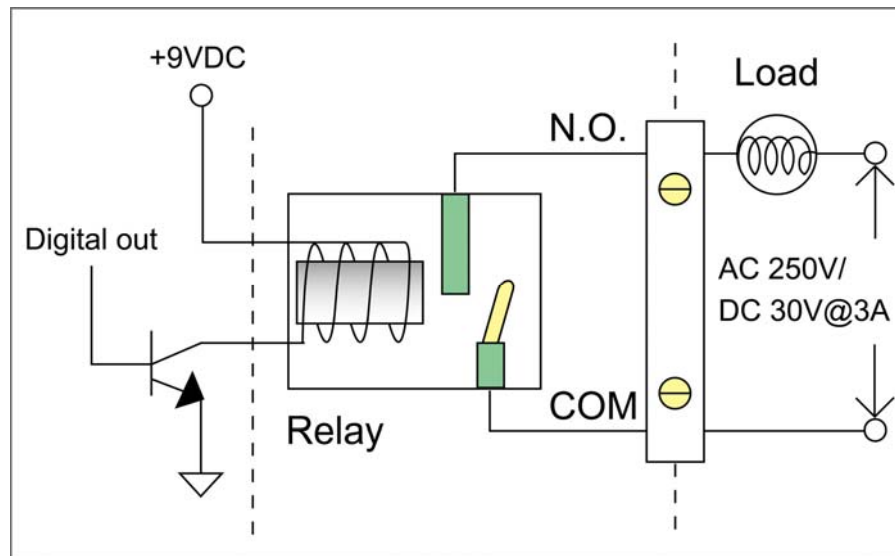
# 6

## Relays and LEDs Mapping

Relay Output	LEDs
CH_0	LED1
CH_1	LED2
CH_2	LED3
CH_3	LED4
CH_4	LED5
CH_5	LED6
CH_6	LED7
CH_7	LED8
CH_8	LED9
CH_9	LED10
CH_10	LED11
CH_11	LED12
CH_12	LED13
CH_13	LED14
CH_14	LED15
CH_15	LED16

# 7

## Circuit Diagram



## Related Information

- **DB-16P16R product page:**  
[http://www.icpdas.com/products/DAQ/screw\\_terminal/db\\_32r&16p16r.htm](http://www.icpdas.com/products/DAQ/screw_terminal/db_32r&16p16r.htm)
- **Documentation:**  
CD:\NAPDOS\Daughter\_Board\  
[http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/daughter\\_board/](http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/daughter_board/)



ICP DAS Web Site: <http://www.icpdas.com>  
Contact Us (E-Mail): [service@icpdas.com](mailto:service@icpdas.com), [service.icpdas@gmail.com](mailto:service.icpdas@gmail.com)

# DAUGHTER BOARD USER GUIDE



for DB-16P16R

繁體中文 / 2010 年 11 月 / 版本 1.0

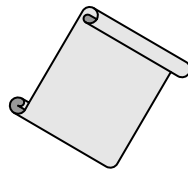
## 1

### 檢查配件

- 一張 DB-16P16R 端子板
- 一張 使用者指南 (本文件)
- 一條 CA-3710D Cable



DB-16P16R



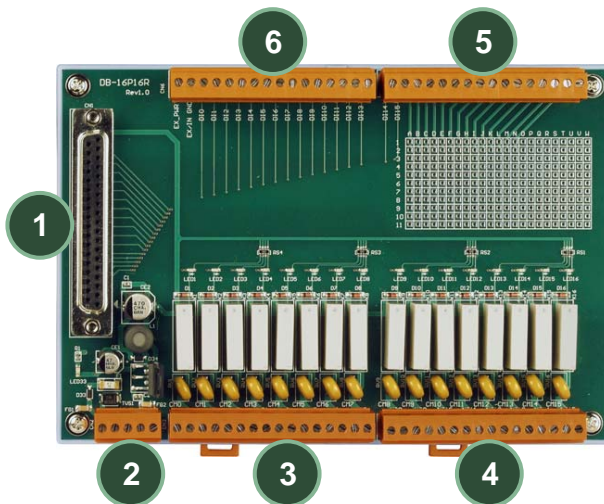
使用者指南



CA-3710D

## 2

### 端子板配置圖



1 CN1: 連接 PISO-P32C32/ISO-P32C32

2 CN2: 電源輸入 + 12 ~ 30 VDC

3 CN3: CH0 ~ Ch7 Relay 輸出

4 CN4: CH8 ~ Ch15 Relay 輸出

5 CN5: CH14 ~ Ch15 D/I

6 CN6: CH0 ~ Ch13 D/I

# 3 特色

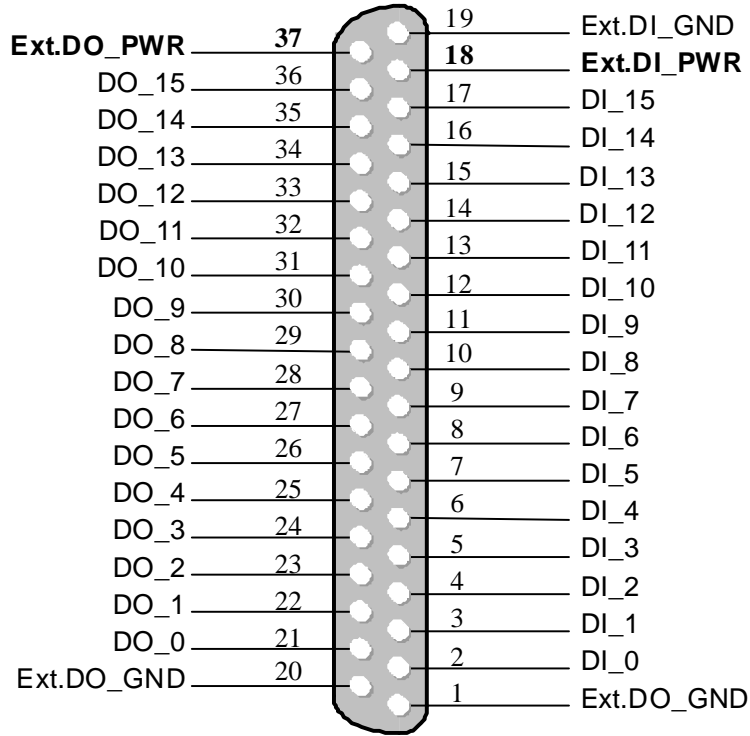
- 16 通道 Form A Relay 端子板
- 提供 37-pin D-sub 接頭適用於 PISO-P32C32 及 ISO-P32C32
- 16 LED 燈顯示各 Relay 狀態
- 便利於接線的端子板
- 電源輸入: +12 ~ +30 V<sub>DC</sub>
- 可運作於 -25 ~ +75°C 的工作環境
- 可安裝於工業用的 DIN 導軌

# 4 規格

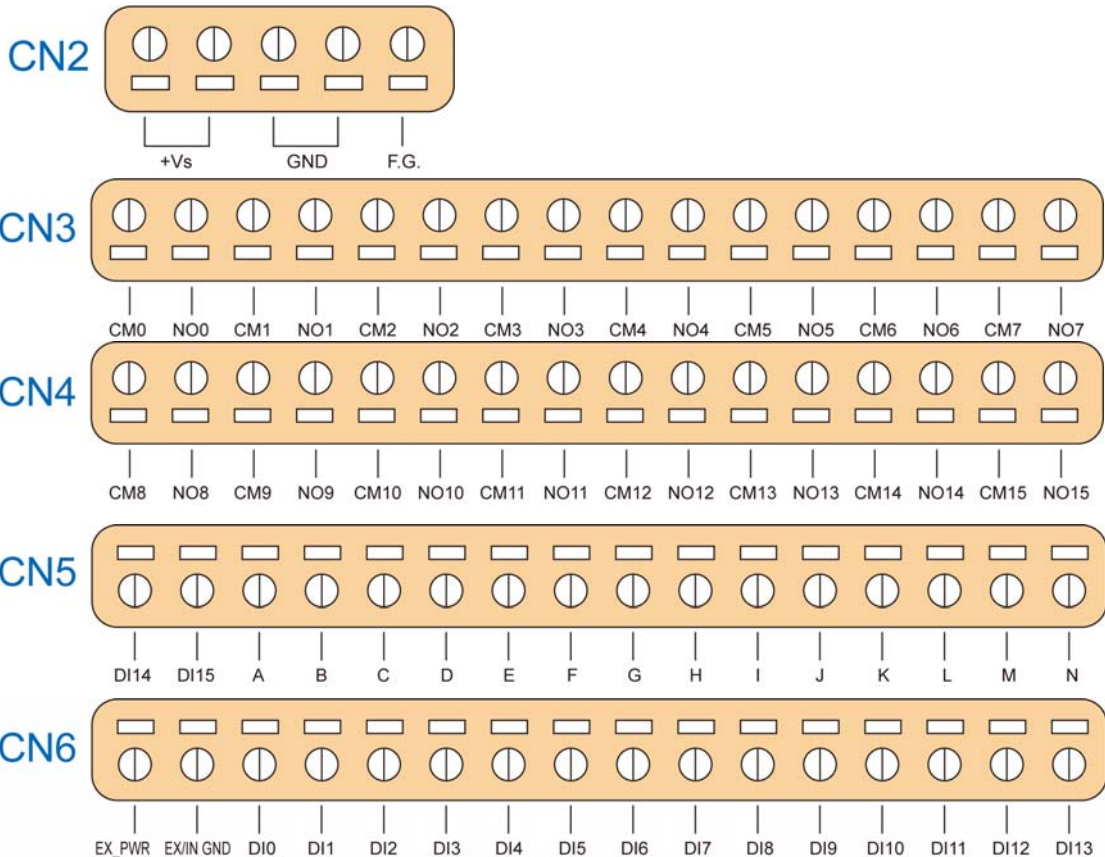
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Power Requirements	
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Power Consumption	0.25 A @ +24 V Max.

# 5 腳位定義

- CN1: 連接 PISO-P32C32 或 ISO-P32C32 的 37-pin D-sub 接頭。



- CN2~CN6 接頭。



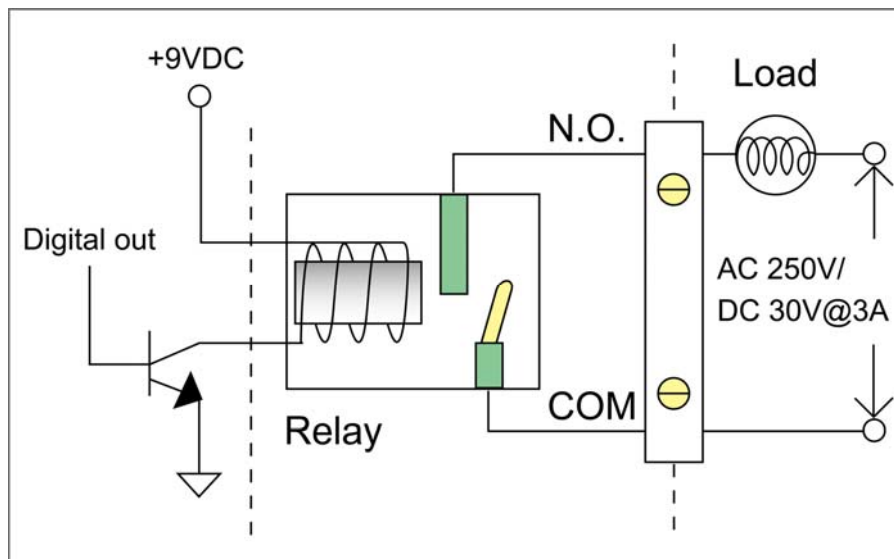
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## Relay 的 LEDs Mapping

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CH_7	LED8
CH_8	LED9
CH_9	LED10
CH_10	LED11
CH_11	LED12
CH_12	LED13
CH_13	LED14
CH_14	LED15
CH_15	LED16

# 7

## 電路圖



## 參考資訊

- DB-16P16R 產品網頁:  
[http://www.icpdas.com/products/DAQ/screw\\_terminal/db\\_32r&16p16r.htm](http://www.icpdas.com/products/DAQ/screw_terminal/db_32r&16p16r.htm)
- 相關文件位置:  
CD:\NAPDOS\Daughter\_Board\  
[http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/daughter\\_board/](http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/daughter_board/)



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