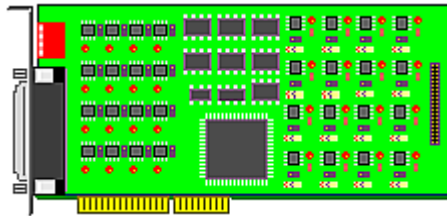


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SMATLAB
INDUSTRIAL AUTOMATION SERIES



PCI BUS 16 CHANNELS PHOTO ISOLATOR INPUT/OUTPUT ADAPTER



PCI 16 channels photo isolator input / output adapter

Product Code:APCI 16 PHOTO

INTRODUCTION

The PCI 16 channels photo isolator input/output adapter is a 32 bits PCI bus board with Plug and Play (PnP) features, it is a programmable I/O interface card for PC/486, Pentium, or compatibles. The PnP features let hardware configuration for IRQ and I/O address is detected by BIOS automatically, you don't need set switch and jumper.

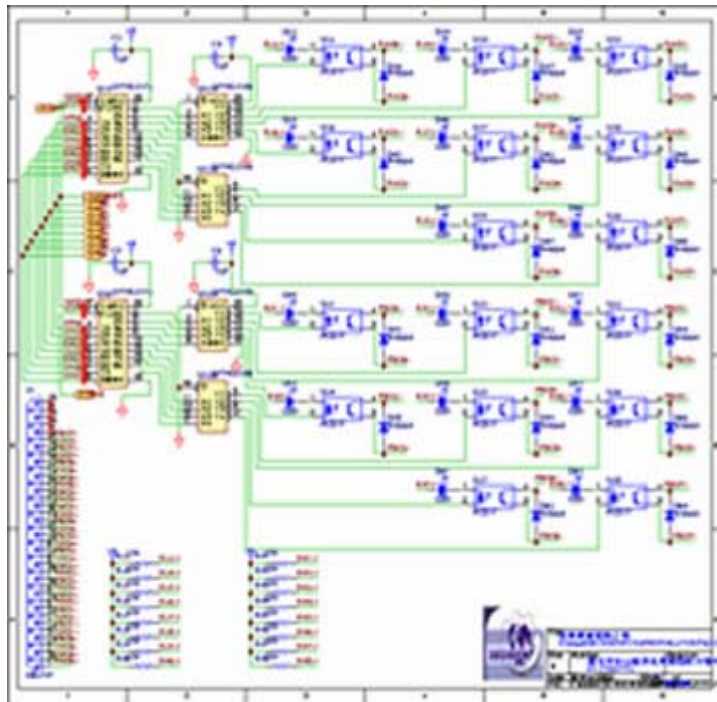
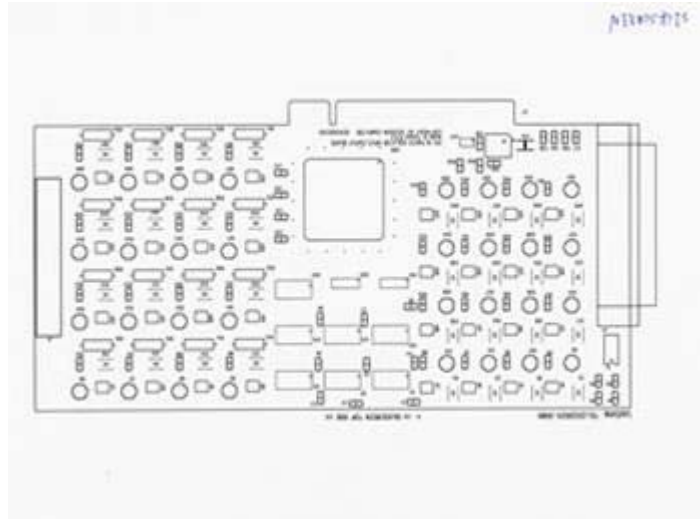
The PCI 16 channels photo isolator input/output adapter provides 16 photo couple digital input/output channels, which allow the input/output signals to be completely floated and prevent the ground loop.

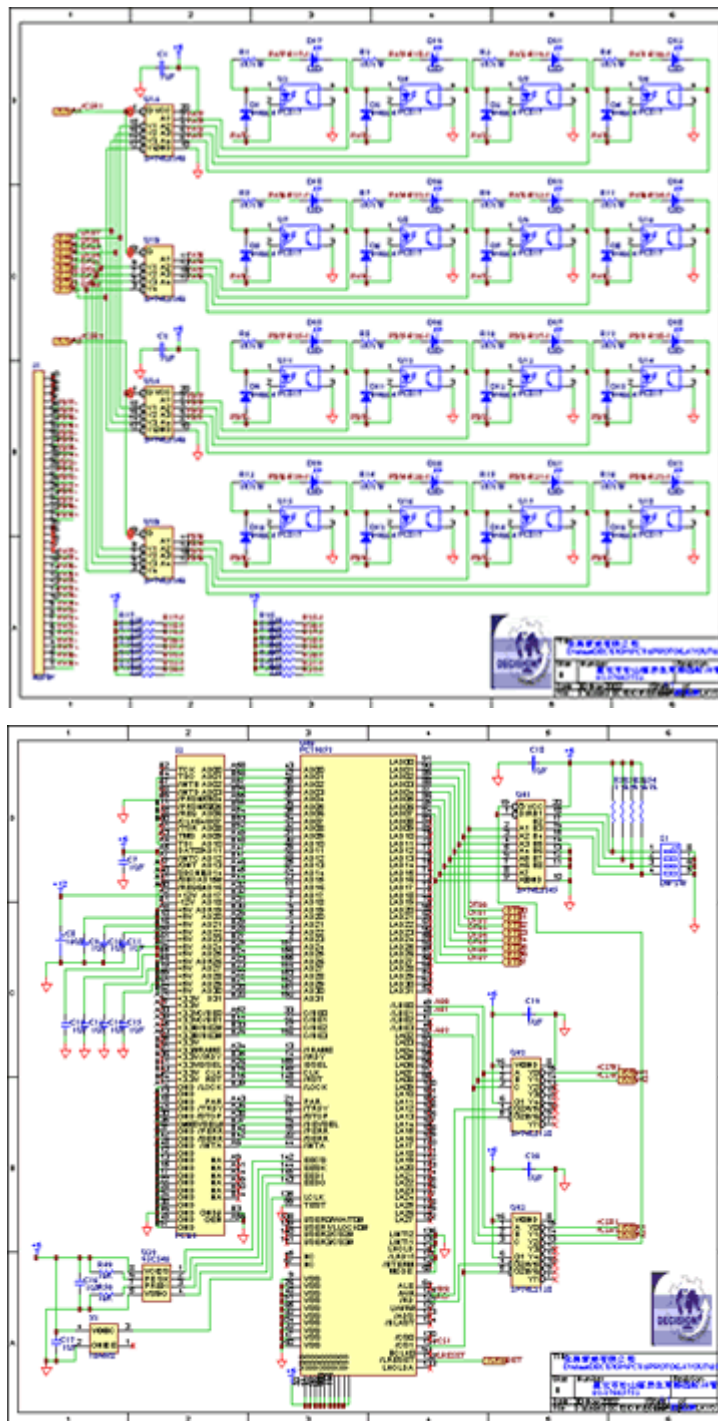
The features of PCI 16 channels photo isolator input/output adapter are:

- * 32 bits PCI bus with Plug and Play (PnP) features.
- * Support 16 photo couple input/output channels.
- * Allow the photo input/output signals to be completely floated and prevent the ground loops.
- * By using 4N33 photo couple chips.
- * 1500V isolation voltage.
- * Maximum load voltage is 30V.
- * Maximum 80mA input current.
- * Voltage range from 0V to 30V, where 0 to 3V is OFF and 5V to 30V is ON.
- * Operating temperature range from 0 to 33C.
- * Relative humidity rage from 0 to 90%.

The package includes following item

- * SMARTLAB PCI bus 16 channels photo couple input/output adapter.
- * User's manual.
- * Warranty form.





HARDWARE INSTALLATION

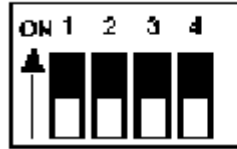
Your PCI bus 16 channels photo isolator input/output adapter is designed to be inserted in any available PCI slot in your PC/486, Pentium or compatibles. In order to gain access to the expansion slots, follow the steps listed below:

1. Turn off all power to your computer and all peripheral devices before installing your 16 channels photo isolator input/output adapter.
2. Remove the cover of the computer.
3. Insert the 16 channels photo isolator input/output adapter into any available PCI slot. Make sure the adapter is firmly seated in the chosen slot.
4. Replace the cover of the computer.
5. Turn on the power of your computer, the PnP features will recognize the 16 channels photo isolator input/output adapter.

HARDWARE CONFIGURATION

Before you use the PCI 16 channels photo couple input/output adapter, Please check our technical web site <http://www.smatlab.com>. You must ensure that the I/O address after boot your computer. Observe the figure in the follows, the proper jumper settings for the 16 channels photo couple input/output adapter is described in the following.

3.1 Switch Settings



Card No 1 : All OFF

Card No 2 : 1 ON, 2, 3, 4 OFF

Card No 3 : 2 ON, 1, 3, 4 OFF

Card No 4 : 3 ON, 1, 2, 4 OFF

The switch is used to identify card number. Please set card number by card identifier switch, the PCI BIOS will assign pre-allocated I/O address to each adapter. Please set different card number to each adapter (do not duplicate card number setting).

3.2 I/O Address

The PnP feature will get base I/O address automatically, where

Base Address + 0:

Photo isolator output channel 1 to 16

15	14	13	12	11	10	9	8
OP16	OP15	OP14	OP13	OP12	OP11	OP11	OP9

7	6	5	4	3	2	1	0
OP8	OP7	OP6	OP5	OP4	OP3	OP2	OP1

Base Address + 0:

Photo isolator input channel 1 to 16.

15	14	13	12	11	10	9	8
IN16	IN15	IN14	IN13	IN12	IN11	IN11	IN9

7	6	5	4	3	2	1	0
IN8	IN7	IN6	IN5	IN4	IN3	IN2	IN1

3.3 Connector Assignments

Pin	Single	Description
1	OP-01+	Opto-isolator Ch. 01 + Output
2	OP-01-	Opto-isolator Ch. 01 - Output
3	OP-02+	Opto-isolator Ch. 02 + Output
4	OP-02-	Opto-isolator Ch. 02 - Output
5	OP-03+	Opto-isolator Ch. 03 + Output
6	OP-03-	Opto-isolator Ch. 03 - Output
7	OP-04+	Opto-isolator Ch. 04 + Output
8	OP-04-	Opto-isolator Ch. 04 - Output
9	OP-05+	Opto-isolator Ch. 05 + Output
10	OP-05-	Opto-isolator Ch. 05 - Output
11	OP-06+	Opto-isolator Ch. 06 + Output
12	OP-06-	Opto-isolator Ch. 06 - Output
13	OP-07+	Opto-isolator Ch. 07 + Output
14	OP-07-	Opto-isolator Ch. 07 - Output

15	OP-08+	Opto-isolator Ch. 08 + Output
16	OP-08-	Opto-isolator Ch. 08 - Output
17	NC	
18	NC	
19	NC	
20	NC	
21	OP-09+	Opto-isolator Ch. 09 + Output
22	OP-09-	Opto-isolator Ch. 09 - Output
23	OP-10+	Opto-isolator Ch. 10 + Output
24	OP-10-	Opto-isolator Ch. 10 - Output
25	OP-11+	Opto-isolator Ch. 11 + Output
26	OP-11-	Opto-isolator Ch. 11 - Output
27	OP-12+	Opto-isolator Ch. 12 + Output
28	OP-12-	Opto-isolator Ch. 12 - Output
29	OP-13+	Opto-isolator Ch. 13 + Output
30	OP-13-	Opto-isolator Ch. 13 - Output
31	OP-14+	Opto-isolator Ch. 14 + Output
32	OP-14-	Opto-isolator Ch. 14 - Output
33	OP-15+	Opto-isolator Ch. 15 + Output
34	OP-15-	Opto-isolator Ch. 15 - Output
35	OP-16+	Opto-isolator Ch. 16 + Output
36	OP-16-	Opto-isolator Ch. 16 - Output
37	NC	

2. DB 37 Connector Pin Assignments (J2)

Pin	Single	Description
1	IN-01+	Opto-isolator Ch. 01 + Input
2	IN-01-	Opto-isolator Ch. 01 - Input
3	IN-02+	Opto-isolator Ch. 02 + Input
4	IN02-	Opto-isolator Ch. 02 - Input
5	IN-03+	Opto-isolator Ch. 03 + Input
6	IN-03-	Opto-isolator Ch. 03 - Input
7	IN-04+	Opto-isolator Ch. 04 + Input
8	IN-04-	Opto-isolator Ch. 04 - Input
9	IN-05+	Opto-isolator Ch. 05 + Input
10	IN-05-	Opto-isolator Ch. 05 - Input
11	IN-06+	Opto-isolator Ch. 06 + Input
12	IN-06-	Opto-isolator Ch. 06 - Input
13	IN-07+	Opto-isolator Ch. 07 + Input
14	IN-07-	Opto-isolator Ch. 07 - Input
15	IN-08+	Opto-isolator Ch. 08 + Input
16	IN-08-	Opto-isolator Ch. 08 - Input
17	NC	
18	NC	
19	NC	
20	NC	
21	IN-09+	Opto-isolator Ch. 09 + Input
22	IN-09-	Opto-isolator Ch. 09 - Input
23	IN-10+	Opto-isolator Ch. 10 + Input
24	IN-10-	Opto-isolator Ch. 10 - Input
25	IN-11+	Opto-isolator Ch. 11 + Input
26	IN-11-	Opto-isolator Ch. 11 - Input
27	IN-12+	Opto-isolator Ch. 12 + Input
28	IN-12-	Opto-isolator Ch. 12 - Input
29	IN-13+	Opto-isolator Ch. 13 + Input
30	IN-13-	Opto-isolator Ch. 13 - Input

31	IN-14+	Opto-isolator Ch. 14 + Input
32	IN-14-	Opto-isolator Ch. 14 - Input
33	IN-15+	Opto-isolator Ch. 15 + Input
34	IN-15-	Opto-isolator Ch. 15 - Input
35	IN-16+	Opto-isolator Ch. 16 + Input
36	IN-16-	Opto-isolator Ch. 16 - Input
37	NC	







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Technical data - Isolated input Output

The digital signal input with isolated protection.

Photo Isolator :

[PDF File PC817](#)

- [Catalog](#) 
- [Manual](#) 
- [Device Driver](#) 
- [Self Test Software & Sample Code](#) 
- [Web Based DAQ](#) 
- [Application](#) 
- [Q&A](#) 