integration with integrity

User's Manual

PC/104 DC/DC Converter and DIO Module 3007628

Version 3.2 , May 2008

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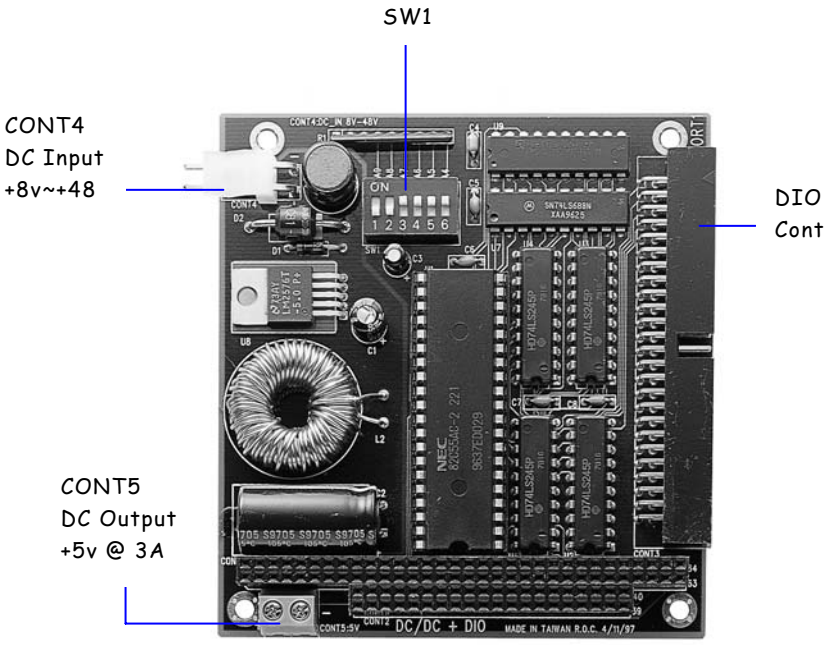
Features	3007628
Digital I/O	24 bit digital I/O lines (1 group) Group emulates a 8225 PPI mode 0 Buffered circuits for higher driving capacity than 8255 Output status read back Pin-compatible with OPTO-22 I/O module racks Transfer rate: 300 KB/sec. (typical) Digital output:Logic level 0: 0.5 V max. @ 24 mA sink Logic level 1: 2.0 V min. @ 15 mA source Digital input: Logic level 0: 0.8 V max. Logic level 1: 2.0 V min.
Power	Input Voltage: +8V ~ +48V DC Output Voltage: 5V DC / 3A Over load protection Over heat protection Converted frequency: 52 KHz Converted effect: Over 80% Suitable for auto / truck system
Bus Interface	PC/104 standard compliant
Dimensions	90 (L) x 96 (W) mm.
Weight	110 g
Operating Temperature	-20 ~ +60 °C

3007628 Component Location



Jumper Setting

The 3007628 occupies 8 consecutive I/O locations. Dip-switch SW1 sets the base address for the 3007628. Be careful when selecting the base address as some settings can conflict with existing PC ports. The following table shows common examples that usually will not cause a conflict.

Base Address Setting (SW1) (**3007628**)

Address	**1**	**2**	**3**	**4**	**5**	**6**
000-00Fh	ON	ON	ON	ON	ON	ON
010-01Fh	ON	ON	ON	ON	ON	OFF
020-02Fh	ON	ON	ON	ON	OFF	ON
030-03Fh	ON	ON	ON	ON	OFF	OFF
200-20Fh	OFF	ON	ON	ON	ON	ON
210-21Fh	OFF	ON	ON	ON	ON	OFF
300-30Fh *	OFF	OFF	ON	ON	ON	ON
3F0-3FFh	OFF	OFF	OFF	OFF	OFF	OFF

Connectors

Connector	3007628
CONT1	
CONT3	Digital I/O Group 1
CONT4	8-48VDC Input
CONT5	5VDC Output

3007628 CONT3

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	AIO23/PARTC	2	GND
3	AIO22/PARTC	4	GND
5	AIO21/PARTC	6	GND
7	AIO20/PARTC	8	GND
9	AIO19/PARTC	10	GND
11	AIO18/PARTC	12	GND
13	AIO17/PARTC	14	GND
15	AIO16/PARTC	16	GND
17	AIO15/PARTB	18	GND
19	AIO14/PARTB	20	GND
21	AIO13/PARTB	22	GND
23	AIO12/PARTB	24	GND
25	AIO11/PARTB	26	GND
27	AIO10/PARTB	28	GND
29	AIO9/PARTB	30	GND
31	AIO8/PARTB	32	GND
33	AIO7/PARTA	34	GND
35	AIO6/PARTA	36	GND
37	AIO5/PARTA	38	GND
39	AIO4/PARTA	40	GND
41	AIO3/PARTA	42	GND
43	AIO2/PARTA	44	GND
45	AIO1/PARTA	46	GND
47	AIO0/PARTA	48	GND
49	VCC	50	GND

Digital I/O

(3007628)

Mode 0 Operation

Mode 0 operation provides simple input and output operation for each of the three ports. No handshaking is required, data is simply written to or read from a specific port.

Mode 0 Basic Functional Definitions:

- Three 8-bit ports
- Any port can be input or output
- Outputs are latched
- Inputs are not latched

I/O port Assignments

Location	Write	Read
BASE+0	A0	A0
BASE+1	B0	B0
BASE+2	C0	C0
BASE+3	Mode Register for A0,B0,C0	N/A

8255 Data Registers

Base+0 Port A0 (read/write)

Bit	7	6	5	4	3	2	1	0
Value	PA07	PA06	PA05	PA04	PA03	PA02	PA01	PA00

Base+1 Port B0 (read/write)

Bit	7	6	5	4	3	2	1	0
Value	PB07	PB06	PB05	PB04	PB03	PB02	PB01	PB00

Base+2 Port C0 (read/write)

Bit	7	6	5	4	3	2	1	0
Value	PC07	PC06	PC05	PC04	PC03	PC02	PC01	PC00

Base+3 Port A0,B0,C0 (write)

Bit	7	6	5	4	3	2	1	0
Value	1	0	0	PA0	PCH	0	PB0	PCL

PA0 = 0 => Port A0 is output

PA0 = 1 => Port A0 is input

PB0 = 0 => Port B0 is output

PB0 = 1 => Port B0 is input

PCL = 0 => Port C0 Low Nibble is output (Bit0-3)

PCL = 1 => Port C0 Low Nibble is input (Bit0-3)

PCH =0 => Port C0 High Nibble is output (Bit4-7)

PCH =1 => Port C0 High Nibble is input (Bit4-7)

After power-on or reset of the module the A0, B0 and C0 ports are default set to input mode.

Any advice or comments about our products and service, or anything we can help you with please don't hesitate to contact with us. We will do our best to support your products, projects and business.

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