ICOP-0070/0071/0072

Power Supply AC/DC PC/104 Module

Power Supply DC/DC PC/104 Module

Power Supply DC/DC + DIO PC/104 Module

User’ s Manual

(Version 3.1)

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Table of Contents

Chapter 0
Packing List

Function	Function	Package
ICOP-0070	Power Supply AC/DC Module	● **ICOP-0070 Power Supply Module** ● **3 Pin extend cable x 1**
ICOP-0071	Power Supply DC/DC Module	● **ICOP-0071 Power Supply Module**
ICOP-0072	Power Supply DC/DC with 24-Bit DIO Module	● **ICOP-0072 Power Supply Module**

Chapter 1

Specifications

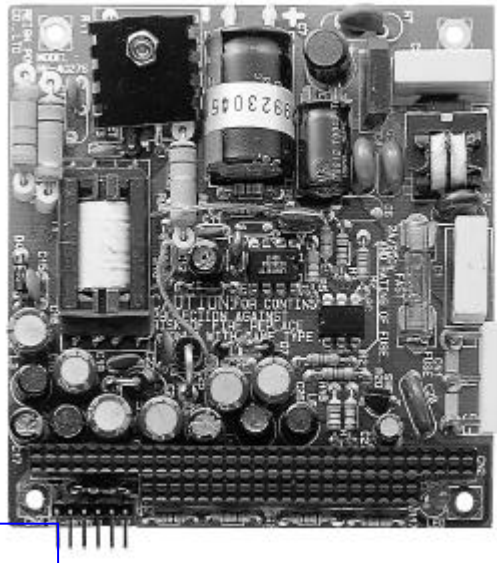
Features	ICOP-0070
Power	Input voltage range : 90 ~ 264 VAC Output voltage : +5 VDC @ 2A, -5 VDC @ 0.2 A, +12 VDC @ 1 A, -12 VDC @ 0.3 A Input frequency : 47 ~ 63 Hz Inrush current cold : 20A @ 110VAC, 40A @ 220 VAC Hold-up time : 16 ms Raise time: 500 ms Overload protection: power limit Short protection : auto-recovery MOSFET design Built-in line filter Meets FCC, CE, TÜV Meets UL478 and CS Fast type FUSE 2A/250V
Connector	3-pin AC input 6-pin DC output (-5V,-12V,+12V,GND,GND,+5V)
Bus Interface	PC/104 standard compliant
Dimensions	90 (L) x 96 (W) mm.
Weight	90 g
Operating Temperature	0 ~ +60 °C

Features	ICOP-0071
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	90 g
Operating Temperature	-20 ~ +60 °C

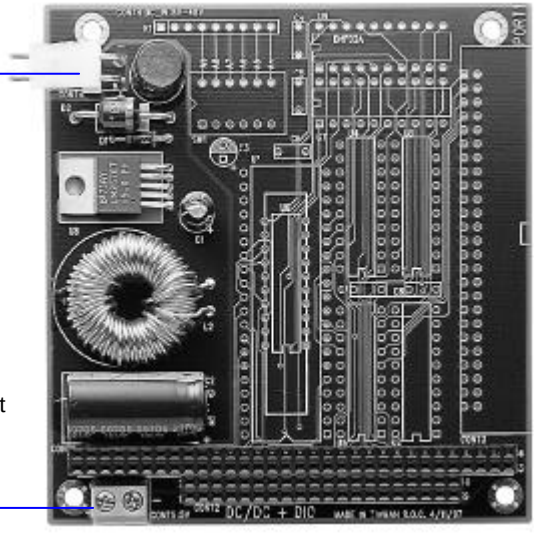
Features	ICOP-0072
Digital I/O	24 bit digital I/O lines (1 group) Group emulates a 8225 PPI mode 0 Buffered circuits for higher driving capacity than 8255 Output status read back Pin-compatible with OPTO-22 I/O module racks Transfer rate: 300 KB/sec. (typical) Digital output:Logic level 0: 0.5 V max. @ 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

Component Location

ICOP-0070

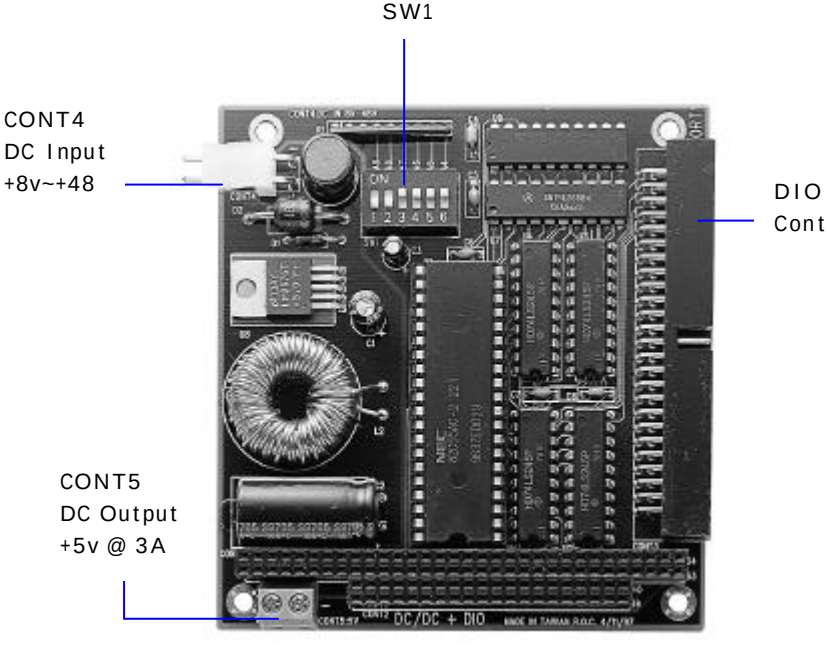


ICOP-0071



Component Location

ICOP-0072



Chapter 2
Jumper Setting

The ICOP-0072 occupies 8 consecutive I/O locations. Dip-switch SW1 sets the base address for the ICOP-0072. 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) (**ICOP-0072**)

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

Chapter 3
Connectors

Connector	ICOP-0070	ICOP-0071	ICOP-0072
CONT1	AC Input		
CONT2			
CONT3			Digital I/O Group 1
CONT4	DC Output	8-48VDC Input	8-48VDC Input
CONT5		5VDC Output	5VDC Output

Chapter 4

Digital I/O

(ICOP-0072)

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.

Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working orderat any time during this period, we will, at our option, replace or repair it at noadditional charge except as set forth in the following terms. This warranty doesnot apply to products damaged by misuse, modifications, accident or disaster. Vendor assumes no liability for any damages, lost profits, lost savings or anyother incidental or consequential damage resulting from the use, misuse of, orinability to use this product. Vendor will not be liable for any claim made by anyother related party. Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.