



DIGITAL I/O ONYX-MM-DIO

48 DIGITAL I/O, LOW COST



- ◆ 48 digital I/O lines using 2 82C55 chips
- ◆ Programmable port directions
- ◆ 10KΩ pull-up resistors on all lines
- ◆ ±2.5mA output current on each line
- ◆ Dual 50-pin I/O headers with 24 I/O lines each
- ◆ -40 to +85°C operation
- ◆ FREE Universal Driver software included

Onyx-MM-DIO provides low-cost, reliable digital I/O for your PC/104 embedded system. The board contains 2 82C55 chips with 24 lines each organized as 3 8-bit ports. Each port's direction can be set independently under software control. All I/O lines have 10KΩ pull-up resistors, and all ports power up in input mode.

The digital I/O lines are brought out on two 50-pin I/O headers, with 24 lines on each header. The I/O headers include +5V and ground for convenience. This board is also available with 3 counter/ timers and 3 programmable interrupts. See model Onyx-MM on page 27.

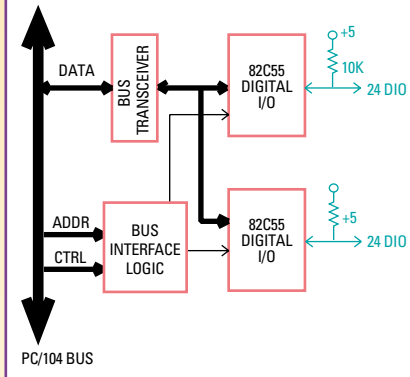
ORDERING GUIDE

OMM-DIO-XT 48 digital I/O
For cables and accessories, see pages 46-47.

SPECIFICATIONS

DIGITAL I/O	
Chip	82C55A (qty. 2)
Number of I/O lines	48 (6 8-bit ports)
Direction	Programmable for each port
Input voltage	Low: -0.5V min, 0.8V max High: 2.0V min, 5.5V max
Output voltage	Low: 0.0V min, 0.4V max High: 3.0V min, Vcc -0.4V max
Output current	±2.5mA max, each line
Output drivers	None, direct interface
Pullup resistors	10KΩ all input lines
GENERAL	
Power supply	+5V ±10% @ 100mA typical, all outputs open
Temperature	-40° to +85°C
PC/104 Bus	8 bits
Weight	2.3oz / 65g

ONYX-MM-DIO BLOCK DIAGRAM



CTR/TIMER I/O HEADER

IN 0	1	2	IN 1	1	2
GATE 0	3	4	GATE 1	3	4
OUT 0	5	6	OUT 1	5	6
IN 2	7	8	EXTERNAL INTERRUPT	7	8
GATE 2	9	10	GROUND	9	10
OUT 2	11	12	GROUND	11	12
+5	13	14	GROUND	13	14

Both Onyx-MM and Onyx-MM-DIO contain two identical 50-pin I/O headers for the digital I/O as shown at right. The counter/timer header shown is on Onyx-MM only.

DIGITAL I/O HEADERS

PORT A	A7	1	2	GND	
	A6	3	4	GND	
	A5	5	6	GND	
	A4	7	8	GND	
	A3	9	10	GND	
	A2	11	12	GND	
	A1	13	14	GND	
	A0	15	16	GND	
	C7	17	18	GND	
	C6	19	20	GND	
PORT C	C5	21	22	GND	
	C4	23	24	GND	
	C3	25	26	GND	
	C2	27	28	GND	
	C1	29	30	GND	
	C0	31	32	GND	
	PORT B	B7	33	34	GND
		B6	35	36	GND
		B5	37	38	GND
		B4	39	40	GND
B3		41	42	GND	
B2		43	44	GND	
B1		45	46	GND	
B0		47	48	GND	
+5	49	50	GND		