

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

DIAMOND SYSTEMS CORPORATION

ONYX-MM

Programmable Counter/Timer, Interrupt, and Digital I/O PC/104 Module



- 48 digital I/O lines
- 3 16-bit counter/timers
- 3 PC/104 bus interrupt lines
- On-board 4MHz clock oscillator
- Programmable counter and interrupt sources
- Can generate bus interrupts at programmable intervals

DESCRIPTION

Extensive software control of features is the highlight of this digital I/O module featuring 48 digital I/O lines, 3 16-bit counter/timers, and 3 independent PC bus interrupt inputs.

The 48 digital I/O lines on Onyx-MM are based on 2 82C55 ICs. They can be programmed for input or output in groups of 8 lines. Direct as well as strobed (latched) I/O modes are supported, and all I/O lines are connected to 10K Ohm pull-up resistors.

The 3 16-bit counter/timers are based on an 82C54 IC. They are controlled through a configuration register on Onyx-MM (in addition to the standard 82C54 configuration register). The counter inputs can be switched between external signals, the on-board 4MHz clock oscillator, or counter outputs, all under software control. By using one counter's output as another counter's input, you can cascade counters in software to create a 32-bit or 48-bit counter.

Onyx-MM also features programmable interrupt operations. A second software-controlled register on board configures up to 3 interrupt lines on the PC bus. Interrupts can be generated by the counter/timer outputs, digital I/O lines, or an external input line. This allows you to use a

SPECIFICATIONS

Digital I/O lines	48 programmable direction
DIO Input voltage	Logic 0: -0.5V min, 0.8V max Logic 1: 2.0V min, 5.5V max
DIO Output voltage	Logic 0: 0.0V min, 0.4V max Logic 1: 3.0V min, Vcc-0.4V max
Programmable I/O Output Current (Max per line)	±2.5mA per line
Fixed I/O and Counter / Timers Output Current	N/A
Counter / Timers	3, 16-bit based on 82C54 (Onyx-MM only)
Clock	10Mhz
Bus Interface	PC/104 (8-bit ISA)
Dimensions	3.55" x 3.775" (90mm x 96mm)
Input Power	+5VDC±10%
Power Draw (typical)	100mA (Onyx-MM-DIO) 120mA (Onyx-MM)
Operating temp	-40°C to +85°C
Weight	2.3oz / 65g (Onyx-MM-DIO) 2.8oz / 79g (Onyx-MM)
Digital I/O lines	48 programmable direction
DIO Input voltage	Logic 0: -0.5V min, 0.8V max Logic 1: 2.0V min, 5.5V max
DIO Output voltage	Logic 0: 0.0V min, 0.4V max Logic 1: 3.0V min, Vcc-0.4V max

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Free Software

Onyx-MM-DIO comes with free driver software compatible with C and Basic languages. Example programs are included to get you started quickly. Some examples of the supported board operations are:

* Digital input, bit, byte, and word
* Digital output, bit, byte, and word
* Interrupt-driven digital I/O with external trigger

ORDERING INFORMATION

Part No.	Description
OMM-XT	Onyx-MM 48 Digital I/O, 3 counters/timers, Ext Temp

FOR MORE INFORMATION

Diamond Systems Corporation
1255 Terra Bella Avenue
Mountain View, CA 94043
Tel: 650-810-2500
Fax: 650-810-2525
techinfo@diamondsystems.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP