

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

DIAMOND-MM-32x-AT

Analog I/O PC/104 Module with Advanced Automatic Autocalibration



- 32 16-bit A/D with 250KHz sample rate, programmable input ranges and 1024 sample FIFO
- Autocalibration of A/D and D/A for high accuracy
- 4 12-bit D/A
- 8 digital inputs and 8 digital outputs
- Counter / timers for A/D control and general use

DESCRIPTION

DMM-32X-AT is Diamond Systems' most advanced embedded A/D board. It includes a comprehensive suite of analog and digital features to fit a wide variety of embedded application needs:

* The 32 A/D input channels feature high-accuracy 16-bit resolution, 250KHz maximum sampling rate, programmable input ranges, and user-selectable single-ended / differential configuration.

* The 4 D/A output channels feature user-selectable output ranges as well as a programmable waveform generator feature.

* The 24 digital I/O feature bit by bit direction programmability as well as buffers for enhanced output current of -15mA (logic 1) / 64mA (logic 0).

* The on-board programmable counter/timer circuitry includes a 32-bit counter/timer for A/D and D/A sample timing, as well as a 16-bit counter/timer for general counting, timing, and programmable interrupt functions.

* Extended temperature operation of -40 to +85oC is tested and guaranteed. Using our patented auto-autocalibration technology, DMM-32X-AT will provide accurate analog measurements across its entire rated operating temperature range, ensuring reliable performance for critical applications.

SPECIFICATIONS

Analog Inputs	
Number of inputs	32 16-bit
Input Modes	Single-ended, Differential
Input Ranges	±10V, ±5V, ±2.5V, ±1.25V, ±0.625V, 0-10V, 0-5V, 1.25V, 0-.625V
Max Sample Rate	250KHz
Nonlinearity	±3LSB, no missing codes
On-board FIFO	1024, prog. threshold
Calibration	Automatic autocalibration
Analog Outputs	4, 12-bit resolution
Output Ranges	±5V, ±10V, 0-5V, 0-10V
Output Current	±5mA max per channel
Settling Time	6µS max to 0.01%
Analog Outputs	
Relative Accuracy	±1 LSB
Digital I/O Lines	24 programmable direction
DIO Input Voltage	Logic 0: 0.0V min, 0.8V max Logic 1: 2.0V min, 5.0V max
DIO Output Voltage	Logic 0: 0.0V min, 0.33V max Logic 1: 2.4V min, 5.0V max
Counter / Timers	1 - 32-bit; 1 - 16-bit
Clock Source	10MHz clock or external signal
Power Supply	+5VDC±10%@410mA
Operating Temp	-40°C to +85°C
Weight	3.4oz / 96g

* Our advanced Universal Driver software is included free with DMM-32X-AT and all our CPU and I/O boards. Universal Driver provides a programming library that simplifies control of all the board's features and enables you to develop your application software quickly.

Digital and Counter/Timer I/O Features

DMM-32X-AT features 24 digital I/O lines and 2 82C54-type counter/timers just like its predecessor DMM-32X-AT. The I/O lines can be programmed for input or output in groups of 8 bits. In output mode the lines are buffered for enhanced output current capability. All DIO lines feature jumper-selectable pull-up / pull-down resistors as well as ESD protection devices to help prevent field failures.

The counter/timers emulate an 8254. Counter 0 is standalone and can be used for general purpose counting, timing, or timer-based interrupts. Counters 1 and 2 are joined together to provide a 32-bit timer for A/D sample rate control or D/A waveform output control.

ORDERING INFORMATION

Part No.	Description
DMM-32X-AT	Analog I/O PC/104 Module with Auto-Autocalibration
WK-D32X-01	Web Development Kit

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 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