

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

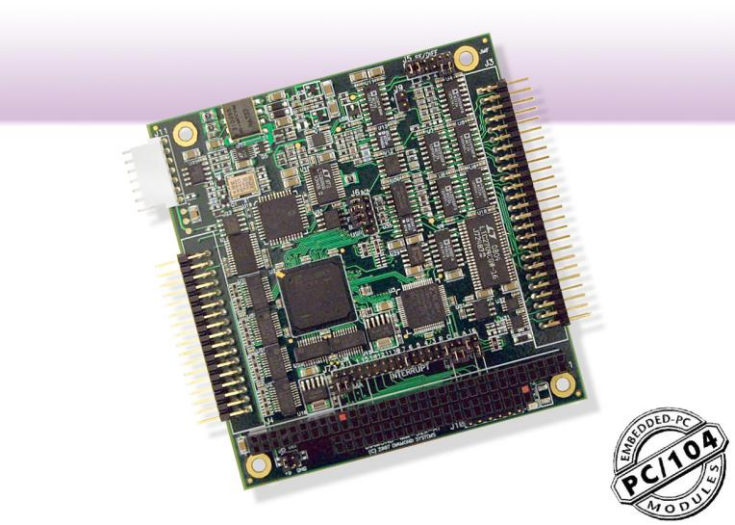
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

DMM-32DX-AT

Analog I/O PC/104 Module

With Advanced Automatic-Autocalibration



- 32 analog inputs, 16-bit resolution
- Patented auto-autocalibration for high accuracy
- 250KHz maximum sampling rate
- Interrupt based A/D data transfer with FIFO support
- 4 analog outputs, 16-bit resolution
- 24 programmable direction digital I/O lines
- Counter / timers for A/D control and general use
- Low noise design
- Extremely rugged -40°C to +85°C (-40°F to +185°F) operating temperature
- Free Universal Driver software

Highly Advanced Analog I/O Board

The Diamond-MM-32DX-AT includes a comprehensive suite of analog and digital features to fit a wide variety of embedded application needs.

Unparalleled Analog Accuracy

Using patented automatic-autocalibration technology, DMM-32DX-AT provides accurate analog measurements across its entire rated operating temperature range, ensuring reliable performance for critical applications.

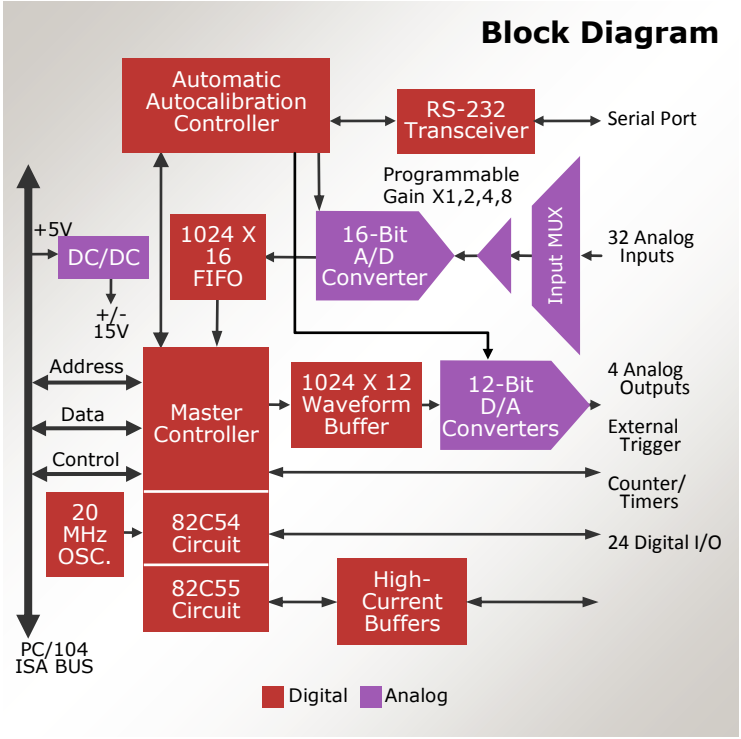
Rugged Design

Extended temperature operation of -40°C to +85°C is tested and guaranteed. The DMM-32DX-AT uses ceramic capacitors for durability in high altitudes or other harsh environments.

Shortened Development Time

Diamond's advanced Universal Driver software is included free and provides a programming library that simplifies control of the board's features and enables you to develop your application software quickly.

Block Diagram



DMM-32DX-AT: Analog I/O PC/104 Module

Specifications

ANALOG INPUTS	
Number of inputs	32 single-ended or 16 differential, user selectable
A/D resolution	16 bits
Input ranges	±10V, ±5V, ±2.5V, ±1.25V, ±0.625V, 0-10V, 0-5V, 0-2.5V, 0-1.25V, 0-0.625V programmable
Max sample rate	250KHz
Protection	±35V on any analog input without damage
Nonlinearity	±3LSB, no missing codes
On-board FIFO	1024 samples, programmable threshold
A/D and D/A calibration	Autocalibration with software support
ANALOG OUTPUTS	
Number of outputs	4, 12-bit resolution
Output ranges	±2.5V, ±5V, ±10V, 0-5V, 0-10V
Output current	±5mA max per channel
Settling time	6µS max to 0.01%
Relative accuracy	±1 LSB
Nonlinearity	±1 LSB, monotonic
DIGITAL I/O	
Number of I/O	24 lines
Input voltage	Logic 0: 0.0V min, 0.8V max Logic 1: 2.0V min, 5.0V max
Input current	±1µA max
Output voltage	Logic 0: 0.0V min, 0.33V max Logic 1: 2.4V min, 5.0V max
Output current	Logic 0: 15mA max per line Logic 1: -84mA max per line
COUNTER / TIMERS	
A/D Pacer clock	32-bit down counter
Clock source	10MHz on-board clock or external signal
General purpose	16-bit down counter
MISCELLANEOUS	
Power supply	+5VDC ±10% at 410mA
Operating temp	-40°C to +85°C (-40°F to +185°F)
Weight	3.4oz (96g)
MTBF	972,275 hours at +20°C
RoHS	Compliant

Software Support

Diamond's Universal Driver software provides a high-level programming library for all of Diamond's data acquisition products. All data acquisition features are supported with easy-to-use function calls, resulting in a reduced learning curve and shortened application development time. Universal Driver works with Windows XP, CE, Linux, QNX and DOS. Application examples are included for each function and OS to provide a quick starting point for development.

Key Features

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

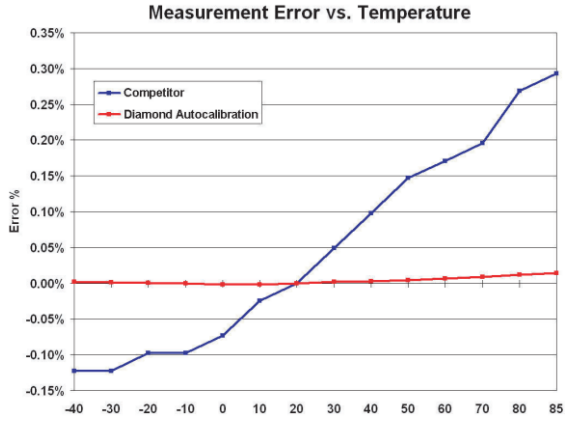
The four D/A 16-bit output channels feature user-selectable output ranges as well as a programmable waveform generator feature.

DMM-32DX-AT's 24 digital I/O lines feature direction programmability in 8-birt ports as well as a buffers for enhanced output current of -15mA (Logic 1) / 64mA (Logic 0). All DIO lines feature jumper-selectable pull-up / pull-down resistors as well as ESD protection devices to help prevent field failures.

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.

Automatic-Autocalibration for Best Accuracy

Diamond's top-performing automatic-autocalibration circuitry enables you to calibrate the analog circuits under software control at any time, maintaining best accuracy under all conditions. An on-board micro-controller manages the autocalibration operation automatically for extreme accuracy and ease of operation. Temperature- and time-dependent measurement drift is eliminated, as the board can be calibrated as often as desired in just a few seconds to ensure accurate reading in all environments.



Ordering Information

DMM-32DX-AT	Analog I/O PC/104 Module with auto-autocalibration

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