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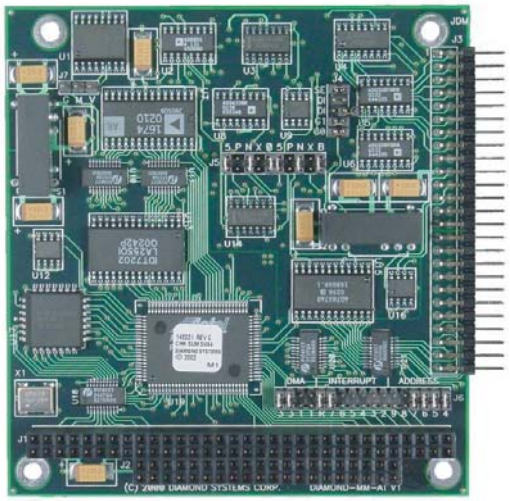
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Find the *Sundance DMM-AT* at our website: ***Click HERE***

DIAMOND SYSTEMS CORPORATION

DIAMOND-MM-AT

16 Channel, 12-bit Analog I/O with Autocalibration



- 16 12-bit A/D with 100KHz sample rate, programmable input ranges and 512 sample FIFO
- Autocalibration for high accuracy
- 2 12-bit D/A
- 8 digital inputs and 8 digital outputs
- Counter / timers for A/D control and general use
- -40 to +85°C operation

DESCRIPTION

For cost-sensitive applications where you still want state of the art performance, choose our Diamond-MM-AT 12-bit board This board has almost all the same features of the Diamond-MM-16-AT board at a 12-bit price. Identical connector pinout and software interface let you upgrade to 16-bit performance later.

Diamond-MM-AT has 16 single-ended / 8 differential analog inputs with 12-bit A/D resolution. A 512-sample FIFO with a 256-sample interrupt threshold enables reliable A/D sampling up to 100KHz in both single-channel and multi-channelscan modes. Nine unipolar and bipolar input ranges let you work with a wide range of input signals.

The board also has 2 analog outputs with 12-bit D/A resolution. They can be set to 0-5V, ±5V, or programmable range in 1mV steps.

The advanced autocalibration circuitry on Diamond-MM-AT calibrates both the analog inputs and outputs under software control. Calibration takes just seconds and can be performed as often as desired using our Universal Driver software shipped with the board.

Diamond-MM-AT also has 8 digital inputs and 8 digital outputs on board. An 82C54 chip on board is provided for

SPECIFICATIONS

Analog Inputs	
Number of inputs	16 16-bit
Input Modes	Single-ended, Differential
Input Ranges	±10V, ±5V, ±2.5V, ±1.25V, ±0-.625V, 0-10V, 0-5V, 0-2.5V, 0-1.25V, programmable
Max Sample Rate	100KHz
Nonlinearity	±1LSB, no missing codes
On-board FIFO	512, 256 threshold
Calibration	Autocalibration
Analog Outputs	2, 12-bit resolution
Output Ranges	±5V, 0-5V
Output Current	±5mA max per channel
Settling Time	4µS max to ±1/2 LSB
Analog Outputs	
Relative Accuracy	±1 LSB
Digital I/O Lines	8 In, 8 Out
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: 3.8V min, 5.0V max
Counter / Timers	1 - 32-bit; 1 - 16-bit
Clock Source	10MHz clock or external signal
Power Supply	+5VDC±10%@320mA
Operating Temp	-40°C to +85°C
Weight	2.6oz / 74g

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counting and timing operations. It provides one 32-bit programmable timer to control the A/D sample rate and one 16-bit counter/timer for general purpose use, including event counting and square wave generation.

This board requires only +5V power supply and operates over the extended temperature range of -40 to +85°C. All these features make Diamond-MM-AT the leader in mid-range PC/104 analog I/O boards.

ORDERING INFORMATION

Part No.	Description
DMM-AT	Diamond-MM Autocalibrating 16-ch 12-bit A/D + 2-ch 12-bit D/A Extended Temperature
WK-DAT-01	DMM-AT Development Kit (Web orders only); includes DMM-AT board and C-50-18 cable

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

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