High-Speed Multi-Function Board

For the IBM AT and Compatibles

NEW™

$**1095**
Basic Unit

- ✔ **200 kHz Conversion Rate**
- ✔ **12 to 14 Bit Resolution**
- ✔ **8 Differential or 16 Single-Ended Inputs**
- ✔ **8 Digital I/O Lines**
- ✔ **2 Analog Outputs**
- ✔ **1 Counter/Timer**

1 YEAR WARRANTY

MADE IN USA
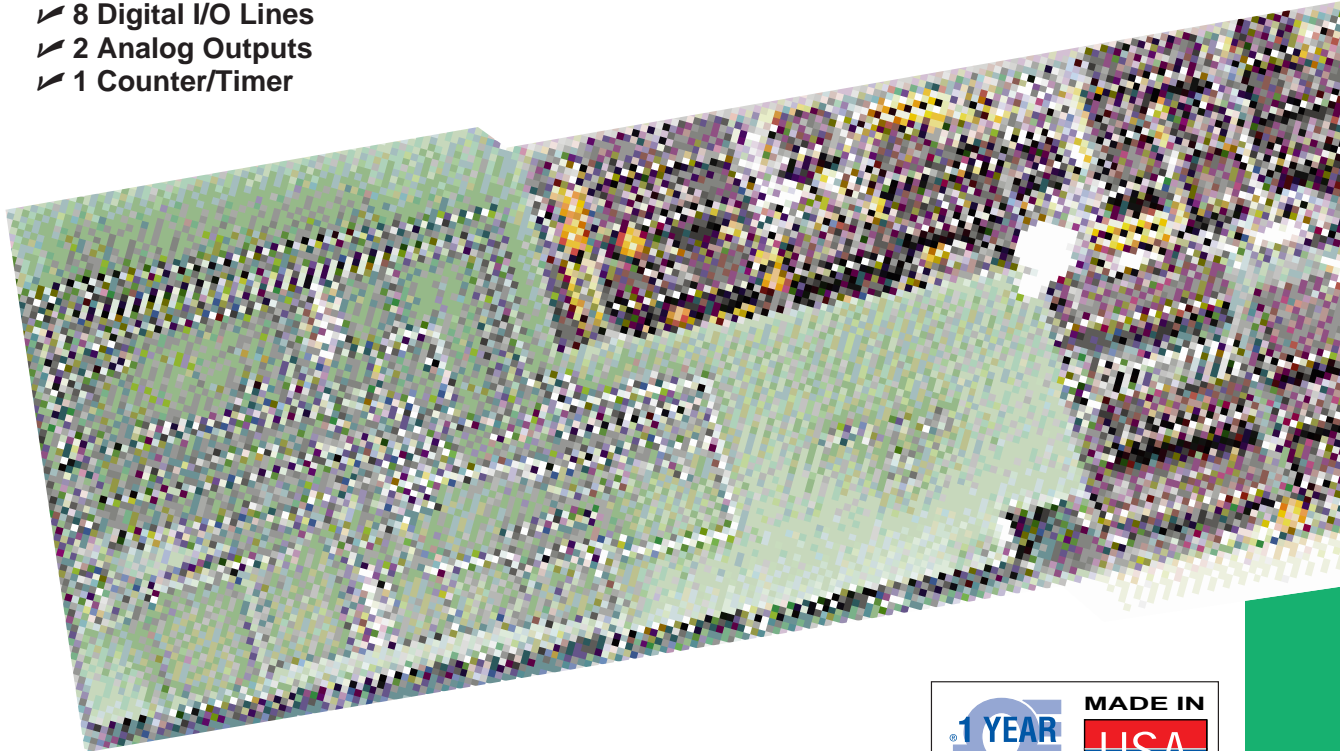
The WB-WORKMATE is a high-speed data acquisition board for the IBM AT, 386, PS/2 Models 20 and 30 and compatible computers. The board features eight differential inputs switchable to 16 single-ended analog inputs, two analog outputs, eight digital I/O lines and one counter. The analog input ranges are software selectable and configurable on a channel-to-channel basis.
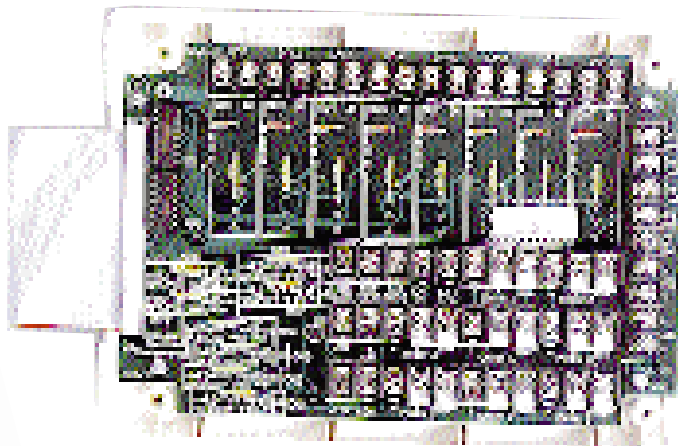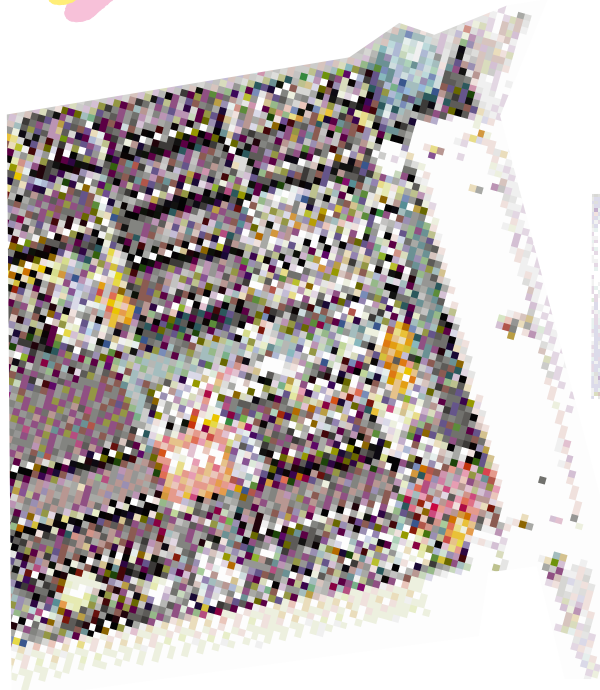
The analog input resolution is selectable through software from 12 to 14 bits. The maximum conversion rate is 200 kHz on one channel or 200 kHz divided by the number of channels in use for multiple channels. The eight digital I/O lines are individually selectable as input or output.

The WB-WORKMATE can also accept types J, K, T, B, R, S, C, D, and G thermocouples directly. (For use with thermocouples, order the WB-WORKMATE-TC board.) The WB-WORKMATE-TC model number includes the WB-WORKMATE board and a special terminal panel that will accept thermocouples in addition to the standard analog voltages.

Included with the WB-WORKMATE board are driver software and example programs. The driver software consists of callable routines for those developing their own programs. The drivers provided are compatible with most common programming languages including assembly, BASIC, C, Fortran and Pascal. For operation without programming, WorkBench PC, an easy-to-use icon-driven data acquisition software program, is optionally available. (See Section B for details.)

Features/Specifications

Analog Inputs: 16 Single-ended or 8 differential. Thermocouples are available with WB-WORKMATE-TC

A/D Resolution: 12 to 14 bit

Conversion Rate: 200 kHz Maximum conversion rate

Channel Switching Rate: Maximum individual channel speed is 200 kHz, divided by the number of channels in use for multiple inputs

A/IN **A/OUT** **DI/O** **IBM PC**

With Terminal Panel: 8 channels independently selectable as inputs or outputs; inputs are TTL compatible; outputs are open collector; low level output: 50 mA max. <0.7 V at 40 mA (sink); high level: 30 V max., <250 µA

Counter/Timer: 16 bit, up to 3 MHz

Automatic Self-Calibration: Automatic calibration to precision on-board calibration reference. No recalibration is necessary when gain ranges are changed.

Operating Temperature: 32 to 122°F (0 to 50°C)

Dimensions: 13.0" x 4.2" (330 x 107 mm)

Auxiliary Power Output: +6.666 V ultrastable, +12 V, -12 V, +5 V

Input Ranges and Accuracy

Unipolar Ranges	Bipolar Ranges	Resolution (@ 12 Bits)	Accuracy
0-5 V	±2.5 V	1.22 mV	±2.5 mV
0-2 V	±1 V	488 µV	±1 mV
0-1 V	±500 mV	244 µV	±0.75 mV
0-500 mV	±250 mV	122 µV	±0.375 mV
0-200 mV	±100 mV	48.8 µV	±0.2 mV
0-100 mV	±50 mV	24.4 µV	±0.1 mV

Thermocouples J, K, T, E, B, R, S, C, D, G

Scan Time

Converter Bits	Scan Rate
12 bits	200 kHz
13 bits	50 kHz
14 bits	2.5 kHz

Analog Outputs:

Channels:	Resolution:	Range:	Accuracy:
2	12 Bits	±5	0.003% max.

DIGITAL I/O

Without Terminal Panel: 8 channels, TTL compatible independently selectable as inputs or outputs; 7 V absolute max. input; sink current = 3 mA with output low (0.5 V); source current = 250 µA with output high (2.4 V)

To Order *(Specify Model Number)*

Model No.	Price	Description
WB-WORKMATE	**$1095**	High-speed board for voltage analog inputs, requires terminal panel (see below)
WB-WORKMATE-TC	1405	High-speed board for thermocouple and voltage analog inputs, includes terminal panel and cable

Comes with driver software, Quicklog for windows data acquisition software and complete operator's manual.
Ordering Example: *WB-WORKMATE board plus WB-T51 terminal panel and cable, $1095 + 189 = **$1284**.*

Options and Accessories

Model No.	Price	Description
WB-T51	**$189**	General-purpose terminal panel and cable in plastic case
SWD-WBPC-3.5	1295	WorkBench PC menu-driven software (see Section B for details)
SWD-WBWIN	995	WorkBench for Windows software (see Section B for details)

D1-0