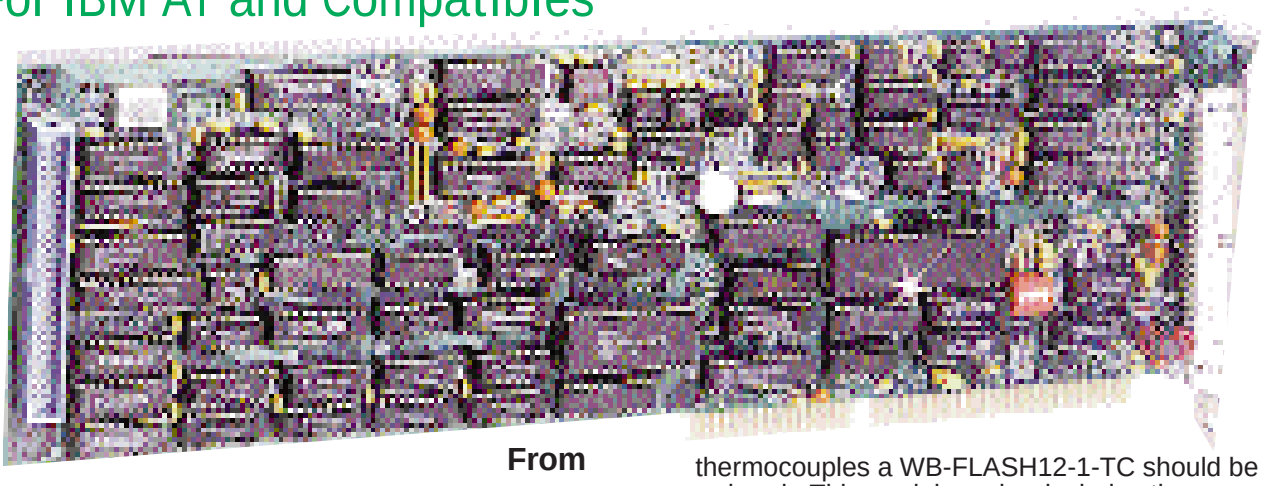
WB-FLASH12
Ultra-High-Speed Plug-In Boards
For IBM AT and Compatibles



From
$1484

- **1 MHz Conversion Rates**
- **12-Bit to 14-Bit Resolution**
- **16 Single-Ended or 8 Differential Inputs**
- **Software Programable Ranges (WB-FLASH12-1 Only)**
- **8 Digital I/O Lines**
- **2 Analog Outputs with Optional Daughter Boards**
- **For IBM AT, 386, 486, PS/2 Models 25 and 30 and Compatibles. (not recommended for Pentiums)**

WB-FLASH12 Series high-speed plug-in boards are designed for transient recording, audio, vibration, aviation, automotive and other types of high-speed data acquisition. They can be used for background data acquisition at rates as low as one sample every 1.5 days to as high as 1 MHz. They can also synthesize waveforms and perform force-measure testing and other high-speed and low-speed test and measurement applications.

The WB-FLASH12-1 can sample up to 1 MHz on one channel or 1 MHz divided by the number of channels in use and has 15 software programmable gain ranges. The WB-FLASH12-2 can also sample up to 1 MHz on one channel or 400 kHz divided by the number of channels in use and has a fixed input range of ±5 V. Both boards are supplied with on-board memory to hold up to 65,536 samples. Through the use of optional daughter boards the memory may be expanded to 1,048,576 samples. The on-board memory allows the boards to support their high throughput rates.

A wide range of triggering options is available for transient recording. Trigger sources include the analog or digital inputs. The on-board memory allows pre- and post-triggers up to the size of the memory.

The WB-FLASH12-1 can also accept J, K, T, E, R, S, B, C, D and G thermocouples directly. For use with thermocouples a WB-FLASH12-1-TC should be ordered. This model number includes the WB-FLASH12-1 card and a special terminal panel which will allow the board to read thermocouples in addition to the standard analog voltages.

The WB-FLASH board can also have two analog outputs. The daughter boards, which add analog input memory, also include two analog outputs. These daughter boards may be ordered with additional memory for buffering the analog outputs.

Software drivers and example programs for the most common languages, including Visual Basic for DOS, C and Pascal are included with these boards. The boards also work with optional WorkBench software for extremely easy setup of your application, including digital storage scope emulation, datalogging and control. Quicklog for windows software is also included. For more inputs/outputs/displays, use Workbench Software. All hardware functions are software configured.

Features/Specifications

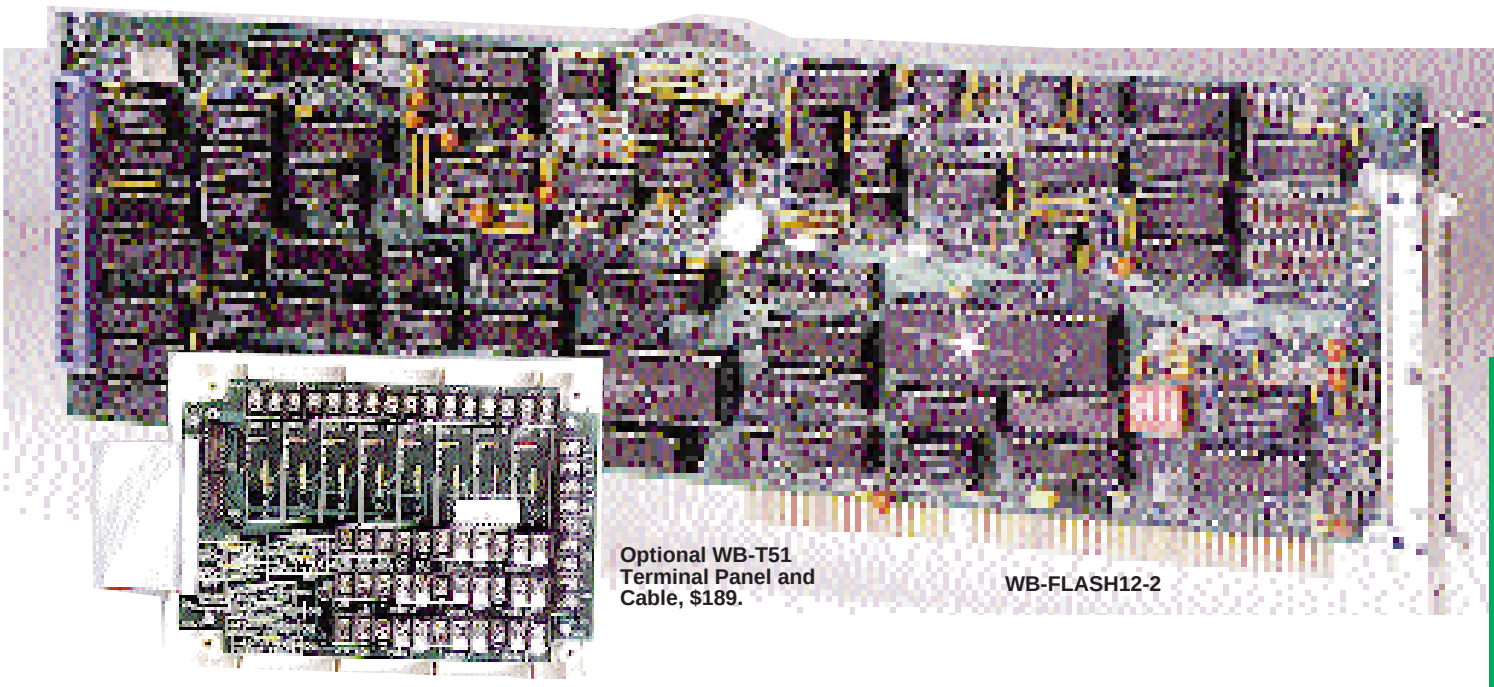
Analog Inputs: 16 Single-ended or 8 differential
Resolution: 12-14 Bits
WB-FLASH12-2 Input Range and Accuracy: ±5 V fixed range with 2.44 mV resolution and ±5 V accuracy (plus 2.5 mV internal noise)

WB-FLASH12-1 Input Ranges and Accuracy*

Unipolar Ranges	Bipolar Ranges	Resolution (@ 12 Bits)	Accuracy (@ 12 Bits)
N/A	±10 V	4.88 mV	±9 mV
0-10 V	±5 V	2.44 mV	±7.5 mV
0-5 V	±2.5 V	1.22 mV	±3.75 mV
0-2 V	±1 V	488 µV	±2.25 mV
0-1 V	±500 mV	244 µV	±1.35 mV
0-500 mV	±250 mV	122 µV	±675 µV
0-200 mV	±100 mV	48.8 µV	±500 µV
0-100 mV	±50 mV	24.4 µV	±400 µV

**Accuracy includes board accuracy plus typical internal noise (typical rms).*

A/IN A/OUT DI/O IBM PC



Optional WB-T51 Terminal Panel and Cable, $189.

WB-FLASH12-2

Scan Time

Converter Bits	Scan Rate One Channel	Scan Rate Multiple Channels*
WB-FLASH12-1		
12	1 MHz	1 MHz
13	500 kHz	500 kHz
14	250 kHz	250 kHz
WB-FLASH12-2		
12	1 MHz	400 kHz
13	250 kHz	100 kHz
14	62.5 kHz	25 kHz

** Sample rate/channel = multiple channel scan rate/number of channels.*

Memory: Supplied with 64 kilowords, expandable to 1 megaword with daughter boards

Analog Outputs: Two 12-bit analog outputs available with optional daughter board. Ranges are software selected for 1-10 V, 0-5 V, ±10 V, ±5 V, ±2.5 V

Digital I/O Lines without Terminal Panel: 8TTL compatible lines independently selectable as inputs or outputs. Outputs sink 3 mA with output low (0.5 V), source 250 µA with output high (2.4 V)

With Terminal Panel: 8 lines independently selectable as inputs or outputs. Inputs are TTL compatible.

Outputs are Open Collector:
Low level: 50 mA max. (sink)
High level: 30 volts max. <250 µA

Counter/Timer: One 16-bit, up to 3 MHz

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

Power Consumption: 10 W, 12.5 W with DB03-M

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

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

To Order *(Specify Model Number)*

Model No.	Price	Description
WB-FLASH12-1	**$2395**	Ultra-high-speed board with 15 voltage input ranges, requires terminal panel
WB-FLASH12-2	**1595**	Ultra-high-speed board with fixed voltage input range, requires terminal panel
WB-FLASH12-1-TC	**2705**	Ultra-high-speed board with 15 voltage and thermocouple inputs. Includes terminal panel and cable
WB-FLASH12-1-DB03-M	**3690**	WB-FLASH12-1 board with 1 Meg sample memory and analog outputs with 256k buffer
WB-FLASH12-2-DB03-M	**2890**	WB-FLASH12-2 board with 1 Meg sample memory and analog outputs with 256k buffer

Comes with driver software, Quicklog for windows software and complete operator's manual.

Ordering Example: *WB-FLASH12-1 board with 15 voltage input ranges plus WB-T51 panel and cable, $2395 + 189 =* ***$2584***

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 Icon-driven software (see section B for details)
SWD-WBWIN	**995**	Workbench for Windows software (see section B for details)