

**Versatile stand alone unit**

**Across the board applications**

**Cost-effective fault-finding**

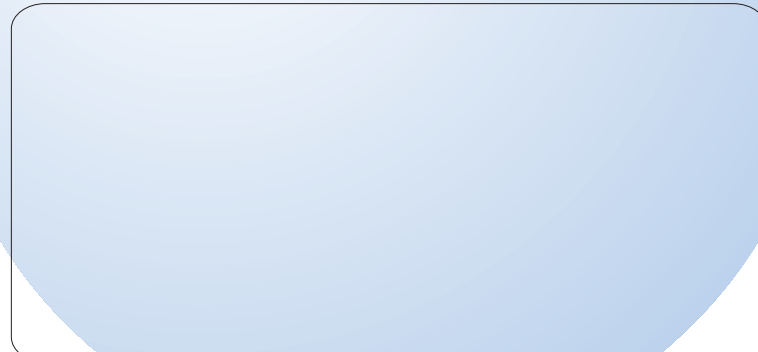


- Analogue 'as wired' in-circuit testing
- Digital 'as wired' in-circuit testing
- Voltage and connections testing
- Live board comparison
- Manufacturing defects analysis
- Power-on and power-off testing
- Automatic signal comparison
- Large format display
- Custom instrument layouts
- Configurable menus and icons
- Save and compare analogue and digital components and waveforms
- Image based fault-finding routines
- QA reporting facilities
- Custom user preferences with supervisor control
- Embedded real-time control, calculation and logging facility

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## The BoardMaster 8000 PLUS

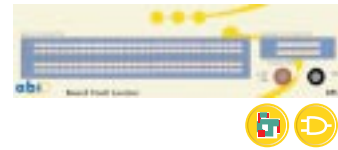
The ABI BoardMaster 8000 PLUS Universal Diagnostic System is a uniquely versatile, self-contained and easy-to-use test system. It offers the most comprehensive set of test instruments for fault-finding on almost any kind of PCB. With the full range of instruments and a variety of test methods guaranteeing the best possible fault coverage, the BoardMaster 8000 PLUS provides the ultimate in diagnostic tools.



The BoardMaster 8000 PLUS is an integrated package of high specification instrumentation controlled by sophisticated but easy to use software. The hardware is installed in a rugged transportable case that also contains a high specification, MS Windows™ compatible PC. All the test connectors are at the front of the case, as is the high resolution colour LCD panel. The system includes a standard PC mouse and keyboard as well as the facility to connect an external monitor.

## Board Fault Locator Module

The BoardMaster 8000 PLUS has 2 Board Fault Locator modules giving 128 test channels for a variety of IC test methods. These provide comprehensive fault diagnosis capability, including in-circuit IC testing, IC connections and voltage testing together with V-I testing which allows testing of components with no need to power the board.



## Analogue IC Tester Module

An Analogue IC Tester allows functional testing of analogue ICs and discrete devices in-circuit. The software allows all common analogue ICs to be tested as they are configured on the PCB, without programming or the need to refer to circuit diagrams, with clear and easy to understand results. Combining power-on and power-off tests, this is the ideal solution to fault find analogue PCBs.



## Multiple Instrument Station Module

A Multiple Instrument Station provides no less than 8 high specification test and measurement instruments in one compact module. Ideal for design or education, or for general purpose workbench use, the system has a Frequency Counter, Digital Storage Oscilloscope, Function Generator, Auxiliary PSU, Digital Floating Multimeter and Universal I/O.



## Variable Power Supply Module

Finally, a SYSTEM 8 Variable Power Supply provides the necessary supply voltages to the unit under test. The three output voltages are variable in both voltage and current making the Variable Power Supply suitable for a wide variety of applications.



### Digital IC Test

128 test channels (2 x 64 in live comparison mode). 8 bus disable outputs. 2 x 5V/5A power supplies. Truth table, voltage, connections, thermal & V-I tests. Logic trace mode. EPROM verifier. Auto clip positioning and circuit compensation\*.

### Digital V-I Test

128 test channels (2 x 64 in live comparison mode). Variable voltage range. Optimised for digital components.

### Analogue IC Test

24 channels plus 3 discrete. Optimised for analogue components. Library driven tests for op amps, comparators, optos, transistors, diodes and special function devices. Auto clip positioning and circuit compensation\*.

### Analogue V-I Test

16 channels plus 2 probes. Variable frequency, impedance and voltage. Variable pulse output. Automatic calibration. V-I, V-T and I-T display of sine, triangle or ramp waveforms.

### Graphical Test Generator

128 channels. Graphically programmable for PCB setup and test. Vectors can be saved, loaded and compared.

### Universal I/O

4 analogue channels and 4 digital channels. Analogue channels can output and measure voltages from -9V to +9V, as well as sinking and sourcing currents up to 20mA. Digital channels can output and read back TTL compatible

logic levels.

### Floating Digital Multimeter

2 channels. DC and AC volts measurements up to 400V. DC and AC current measurements up to 2A. Resistance measurement up to 20M Ohm. Auto-ranging, statistics for minimum, maximum and average readings.

### Matrix V-I

16 channels with rotating reference. Multi-plot display with single waveform zoom. Charge voltage protection at 1V. Mean percentage comparison for each pin with audible and visual indication.

### Short Locator

3 resistance ranges. Audible indication of proximity to short. Visual indication of proximity to short. Audible continuity checker.

### Auxiliary Power Supply

5V output at 0.5A, +9V output at 100mA and -9V output at 100mA. Current monitoring on all three outputs.

### Variable Power Supply

2.5V to 6V variable logic supply with over voltage protection. Variable positive and negative supplies to 24V with variable current up to 1A.

intelligent vision innovative



## Standard Accessories

The BoardMaster 8000 PLUS is supplied with a comprehensive range of test clips, test cables and probes for all the test instruments.

### Board Fault Locator Cable Set

64 way test cable  
64 way split test cable  
BDO cable assembly  
short locator cable assembly  
ground clip  
PSU leads  
V-I probe assembly

### Additional Board Fault Locator Cable Set

64 way test cable  
64 way split test cable  
short locator cable assembly  
ground clip  
PSU leads  
V-I probe assembly

### Multiple Instrument Station Cable and Probe Set

2 x DSO probes  
1 x yellow probe and cable  
1 x blue probe and cable  
1 x black probe and cable  
1 x universal I/O cable (not terminated)

### Analogue IC Test Cable Set

1 x 24 pin cable and test clip  
1 x yellow probe and cable  
1 x blue probe and cable  
2 x pulse leads  
2 x ground leads  
3 x discrete leads and 1 x SMT tweezer set and adapters.

**DIL Test Clips** (0.3" gauge - 8, 16, 20, 24 pin, 0.6" gauge - 24, 40 pin)

## Optional Accessories

### MultiProbe Range

0.050" pitch 10 pin (SOIC and PLCC) and 0.100" pitch 8 pin (DIL).

### PenProbe 4-piece Set

Type 1 (3 pin transistors, SOT23 and similar), type 2 (3 pin transistors, TO72 and similar), type 3 (3 pin transistors, TO220 and similar), type 4 (3 pin transistors, TO92 and similar)

### SOIC test clip and cable set

8, 14, 16 pin narrow and 20, 24, 28 pin wide

### PLCC test clip and cable assemblies

20, 28, 44, 52, 68 and 84 pin

### QFP test clip and cable assembly

100, 144, 160, 208 pin

### Automatic out-of-circuit adapter

Allows up to 40 pin ICs to be tested out-of-circuit, automatically switching between VCC and Ground to the correct pins. Can be supplied with 16 and 28 pin SOIC adapters.

## The ultimate testing system

	Board Fault Locator	Analogue IC Tester	Multiple Instrument Station	Variable Power Supply
Channels per instrument (Analogue in brackets)	64 ‡ (24+16)	4 (4)	N/A	
Power supplies	Fixed 5V	5V ±9V	2-7V ±24V	
Discrete testing		●		
Analogue impedance test		●		
Digital impedance test	●			
Logic supplies	●		●	●
Measurement *			●	
Short locator	●			
Unknown IC search	●			
Out-of-circuit	○			
In-circuit	●	●	●	●
Analogue test		●		
Digital test	●			
IC functional test	●	●		

\* DSO, Function Generator, Frequency Counter, Digital Floating Multimeter, Universal I/O  
○ With adapter included

## Premier Software

Premier Software is supplied with BoardMaster 8000, giving advanced control of your system.

- Advanced control software
- Utility management systems
- Custom instrument design
- Automatic test procedures
- User definable logging, comparison and control facility
- Calculator with flexible data logger, instrument and procedure control

At the heart of the software is the TestFlow Automatic Test Manager. It not only speeds up testing but allows the system to be used by semi-skilled operators.

A technician stores a test procedure for a particular PCB, which can include his knowledge of the board, schematics, bitmap images, components and his experience of fault finding in a 'prompt box'. The semi-skilled operator need only follow the instructions on-screen to carry out a test on even the most complicated equipment.

The TestFlow Automatic Test Manager provides automatically documented fault-finding sequences by comparing good and bad boards. Test points, test methods, operator instructions and a report generator with statistical functions are all available on-screen in an easy to follow format.