

intelligent  
visionary  
innovative



## The SYSTEM 8 Range

The SYSTEM 8 Range of fault-finding, component test and measurement equipment provides unrivalled capabilities.

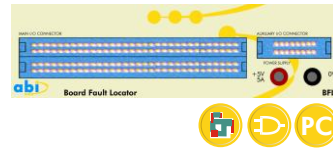
Whether your problem is design verification, production test, semiconductor device testing, production repair or field service, and whether your boards are analogue, digital or both, the SYSTEM 8 range offers a complete, cost-effective and practical solution.



The SYSTEM 8 range is made up of modules which can be combined together to suit a wide variety of applications. Modules require a standard PC to work along with the custom design SYSTEM 8 Premier software package. Connection to hardware is achieved via PCI interface. A USB interface option is also available for external use with a laptop for instance.

## Board Fault Locator Module (BFL)

The *Board Fault Locator* provides a variety of test methods aimed at digital ICs and circuitry. With 64 test channels, it offers comprehensive fault diagnosis capability, including functional in- and out-of-circuit IC testing, IC connections status and voltage acquisition together with a V-I Curve function which allows testing of components with no need to apply power to the board. Each module also contains 4 bus disable outputs and one 5V/5A power supply. Up to 4 BFL modules may be connected together thus giving 256 test channels.



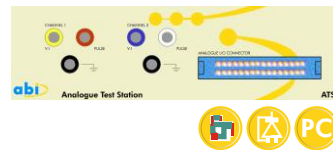
## Analogue IC Tester Module (AICT)

The *Analogue IC Tester* allows in-circuit functional testing of analogue ICs and discrete components. All common analogue devices can be tested as they are configured on the PCB, without programming or the need to refer to circuit diagrams. The AICT also includes a fully configurable V-I Tester for detection of faults on un-powered boards through clear and easy to understand graphical results. Combining power-on and power-off tests, this is the ideal solution to fault find analogue PCBs.



## Analogue Test Station Module (ATS)

For users requiring the identification and testing of analogue devices without the need for functional testing, the *Analogue Test Station* is a cost-effective option. The fully configurable V-I Tester, which also includes the Matrix V-I option, provides comprehensive fault finding on un-powered analogue components and PCBs. The comparison option between a good and a bad board is also provided.



## Multiple Instrument Station Module (MIS)

The *Multiple Instrument Station* provides no less than 8 high specification test and measurement instruments in one compact module. Ideal for design, education or for general purpose workbench use, the MIS offers a Frequency Counter, Digital Storage Oscilloscope, Function Generator, Digital Floating Multimeter, Auxiliary PSU and Universal I/O. For optimised utilisation, standard instruments can be customised or new ones can be designed to suit applications.



## Variable Power Supply Module (VPS)

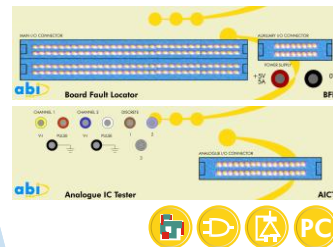
The *Variable Power Supply* provides the necessary supply voltages to the unit under test. The three outputs are variable in both voltage and current making the VPS suitable for a wide variety of applications.



A combination of the SYSTEM 8 modules above can be used to suit your own application. However, we have put together some of the most common combinations in our range of Solutions :

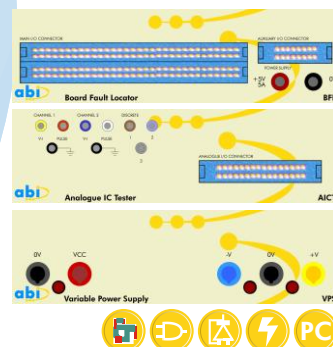
### Diagnostic Solution

The *SYSTEM 8 Diagnostic Solution* is the answer to board fault-finding problems. Equally at home with analogue or digital PCBs, the system's 64 digital and 24 analogue test channels provide a variety of fault-finding techniques to track down the most elusive faults. The in-circuit IC functional test is the heart of the system - look into an IC and check that it functions correctly, look outside and confirm that it is correctly wired. Use the analogue V-I tester, with selectable test frequencies, impedance and voltages, to check analogue components. Compare the results with a known good board, automate fault-finding procedures with the test sequence generator, and fault diagnosis becomes truly effortless !



### Diagnostic Solution PLUS

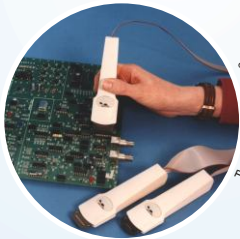
Add to the SYSTEM 8 Diagnostic Solution an integrated power supply for diagnostic testing and you have the *SYSTEM 8 Diagnostic Solution PLUS*. This provides the necessary supply voltages to the unit under test with three output voltages which are variable in both voltage and current.



-   
Measurements
-   
Power Supply
-   
PC required
-   
In-circuit
-   
Digital
-   
Analogue

# SYSTEM 8 Accessories

intelligent  
visionary  
innovative



The MultiProbe Range



A full range of clips and cables

## SYSTEM 8 Premier Software

The software *SYSTEM 8 Premier* is designed for seamless interaction with the hardware whilst still providing state of the art test algorithms. Advanced control to the system is provided through intuitive windows including :

- User access manager
- TestFlow automatic test manager
- Instrument design manager
- Instrument menu manager
- Custom calculator functions
- Flexible data logger

At the heart of *SYSTEM 8 Premier* is the concept of *TestFlow*, an approach to testing and fault finding that not only speeds up operation and thus turnover but also allows the system to be used by semi-skilled operators.

*TestFlow* transforms fault finding into a methodical, step by step procedure that reduces the risk of inaccurate measurements by recording all the parameters of a test. Technicians can write a test procedure, or *TestFlow*, for a particular PCB by setting up each stage of the process and recording the results. They may also include their knowledge of the board through schematics, bitmap images or even notes and instructions to assist with the task. Semi-skilled operators need only follow the instructions on-screen to carry out an extensive test sequence on even the most complicated equipment.

The *TestFlow Automatic Test Manager* provides automatically documented fault-finding reports 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.

With *TestFlow*, knowledge and experience of a PCB does not belong to only one person; it can be accessed by anyone !

### Accessory

	Diagnostic Solution PLUS	Diagnostic Solution	Board Fault Locator	Analogue IC Tester	Analogue Test Station
64 way test cable assembly	●	●	●		
64 way split cable assembly	●	●	●		
MultiProbe: 0.050" 10 pin SOIC, PLCC	●	●	●	●	●
MultiProbe: 0.100" 8 pin DIL	●	●	●	●	●
PenProbe: 3 pin SOT32 and similar	●	●		●	
PenProbe: 3 pin TO72 and similar	●	●		●	
PenProbe: 3 pin TO220 and similar	●	●		●	
PenProbe: 3 pin TO92 and similar	●	●		●	
DIL test clip set, 0.3" gauge	●	●	●	●	●
DIL test clip set, 0.6" gauge	●	●	●	●	
SOIC out-of-circuit adapter, 28 pin wide	†	†	†		
SOIC out-of-circuit adapter, 16 pin narrow	†	†	†		
SOIC test clip set and cable assembly	●	●	●		
20 pin PLCC test clip and cable assembly	●	●	●		
28 pin PLCC test clip and cable assembly	●	●	●		
44 pin PLCC test clip and cable assembly	●	●	●		
52 pin PLCC test clip and cable assembly	●	●	●		
68 pin PLCC test clip and cable assembly	‡	‡	‡		
84 pin PLCC test clip and cable assembly	‡	‡	‡		
100 pin QFP test clip and cable assembly	‡	‡	‡		
144 pin QFP test clip and cable assembly	‡	‡	‡		
160 pin QFP test clip and cable assembly	‡	‡	‡		
208pin QFP test clip and cable assembly	‡	‡	‡		
Automatic out-of-circuit IC Test Adapter	●	●	●		

† Requires Automatic out-of-circuit IC Test Adapter  
‡ Requires product upgrade

## Choosing the right system

	Diagnostic Solution PLUS	Diagnostic Solution	Board Fault Locator	Analogue IC Tester	Analogue Test Station	Multiple Instrument Station	Variable Power Supply
Channels per instrument (Analogue in brackets)	64 (24+24)	64 (24+24)	64 ‡	(24+24)	(24)	4 (4)	N/A
Power supplies	2-7V ±24V	Fixed 5V	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  
‡ Upgrade options: 128, 192, 256 channels  
○ With adapter included

## SYSTEM 8 PremierLink (Optional)

An optional PC based software package that allows users to add new devices to the library, select a variety of tests and create new functional tests to suit special applications. Test routines for devices included in the System8 built-in library can also be viewed (ASM).

New IC functional tests can be created using PremierLink IC Programming (PLIP), a high-level descriptive test programming language optimised for generation of both analogue and digital IC test programmes.

PremierLink includes :

- Library development manager for IC configuration and test selection
- PLIP programming for full generation of new IC functional tests
- Access to test routines for System8 built-in library devices
- Compiler, debugger and active help integrated

## Versatile, modular and upgradeable

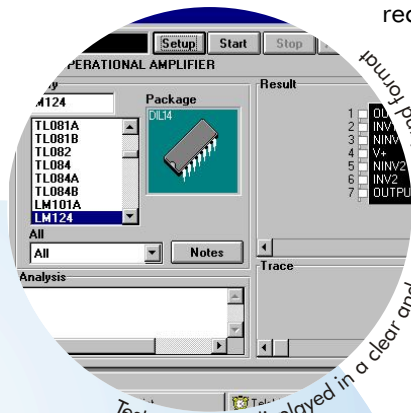
## Across the board applications

## Cost-effective fault-finding

Today's rapidly changing, dynamic and progressive electronics industry presents multiple problems to engineers, whether they are working in design, production, test or fault-finding. Electronic circuits are becoming faster, smaller, cheaper and more complex. Cost-effective test and repair is also becoming more difficult to achieve. As a result, you are making ever increasing demands on your test equipment to keep pace with the challenges presented by this explosion of technology. If you recognise the problems, you are half way to finding the solution.

Even though technology marches relentlessly on, the basic nature of faults remains the same. ICs still fail, diodes still become open circuit, capacitors still become short circuit. A solder bridge today is the same as a solder bridge 10 years ago. But today we must find these faults quicker. "Beyond economical repair" does not mean that the board cannot be repaired, only that it will take too long.

Economics of repair also includes the cost of test equipment. The SYSTEM 8 Range offers cost-effective fault-finding across a wide range of applications.



Your local distributor:



ABI Electronics Limited  
Dodworth Business Park  
Barnsley S75 3SP  
South Yorkshire  
United Kingdom  
Tel: +44 1226 207420  
Fax: +44 1226 207620  
[www.abielelectronics.co.uk](http://www.abielelectronics.co.uk)