Diagnosys

PinPoint II

Circuit board test & diagnostic system

diagnosys.com

Multi-strategy testing for confidence...

Test of Individual Components and Edge connectors testing [1]

The PinPoint system performs tests on individual components using in-circuit test methods and a fixtureless clip technique. These dynamic digital and analog tests prove the correct operation of each device and can also detect opens, shorts, voltage, digital failures and incorrect, broken or missing passive components on networks. These tests can also be applied at the edge connector of a circuit to prove the functionality of the whole circuit.

Powerful V/I testing [2]

In addition to the advanced and powerful digital tests, the PinPoint system also utilises a V/I testing technique. This technique applies a sinusoidal signal to a network and learns the four quadrant signature for it. This signature is then stored and used for comparison of the network on other boards giving an instant indication of any error. The results are graphically displayed on the screen. This power-off technique can be applied to any board and is therefore ideal when little or no information is available about the device or networks being tested.

Parametric Test Unit (PTU) [3]

Four discrete channels on the PinPoint Vectorless Test card are dedicated to DC voltage and current sources. These channels can be used for functional testing of discrete components both in and out of circuit, for example: h_{FE} of transistors or semiconductor junction forward voltage.

LCR Bridge [4]

The LCR bridge is used to measure the values of Inductors, Capacitors and Resistors in or out of circuit. Powered by TestVue software you immediately feel in control of the straight-forward tool and can put it to use immediately testing components. Measuring the values of a network impedance is now a straight forward task that enhances the diagnostic capabilities available in the PinPoint system.

Control PXI and GPIB instrumentation [5]

Extending the capability of the PinPoint system even further is its inherent capability to control PXI and GPIB instrumentation. Having PXI control of these instruments through the user friendly TestVue™ software allows you to create functional analog tests for your circuits. Instrument Strategizer gives the graphic capability to program and sequence instruments with other code to provide a seamless mixed signal test program. Additional power supplies can also be added to enhance the standard system UUT (Unit Under Test) power supplies for extended test capabilities.

Reverse Engineering [6]

Another key capability of the PinPoint is the ability to reverse engineer to a Schematic Diagram or Netlist from an unknown circuit. This provides you with the ability to test, diagnose and repair circuits that have been declared obsolete by the OEM (Original Equipment Manufacturer) and give you protection from obsolescence.

Boundary Scan [7]

This technique can be applied to a single device or a chain of devices that are enabled with the necessary hardware. Adding to the capability of test methods available, the integration of your preferred Boundary Scan solution provides you with the ability to create a flexible and comprehensive test of your circuits.

TrakTest [8]

This facility tests the continuity of tracks between devices and also tests for the presence of short circuits between pins of a device. Through reference to a netlist for the circuit, the PinPoint rapidly detects incorrect open and short circuits in the circuit. If the netlist is not readily available then the PinPoint can be used to generate one from a known good board using its' Reverse Engineering facility.

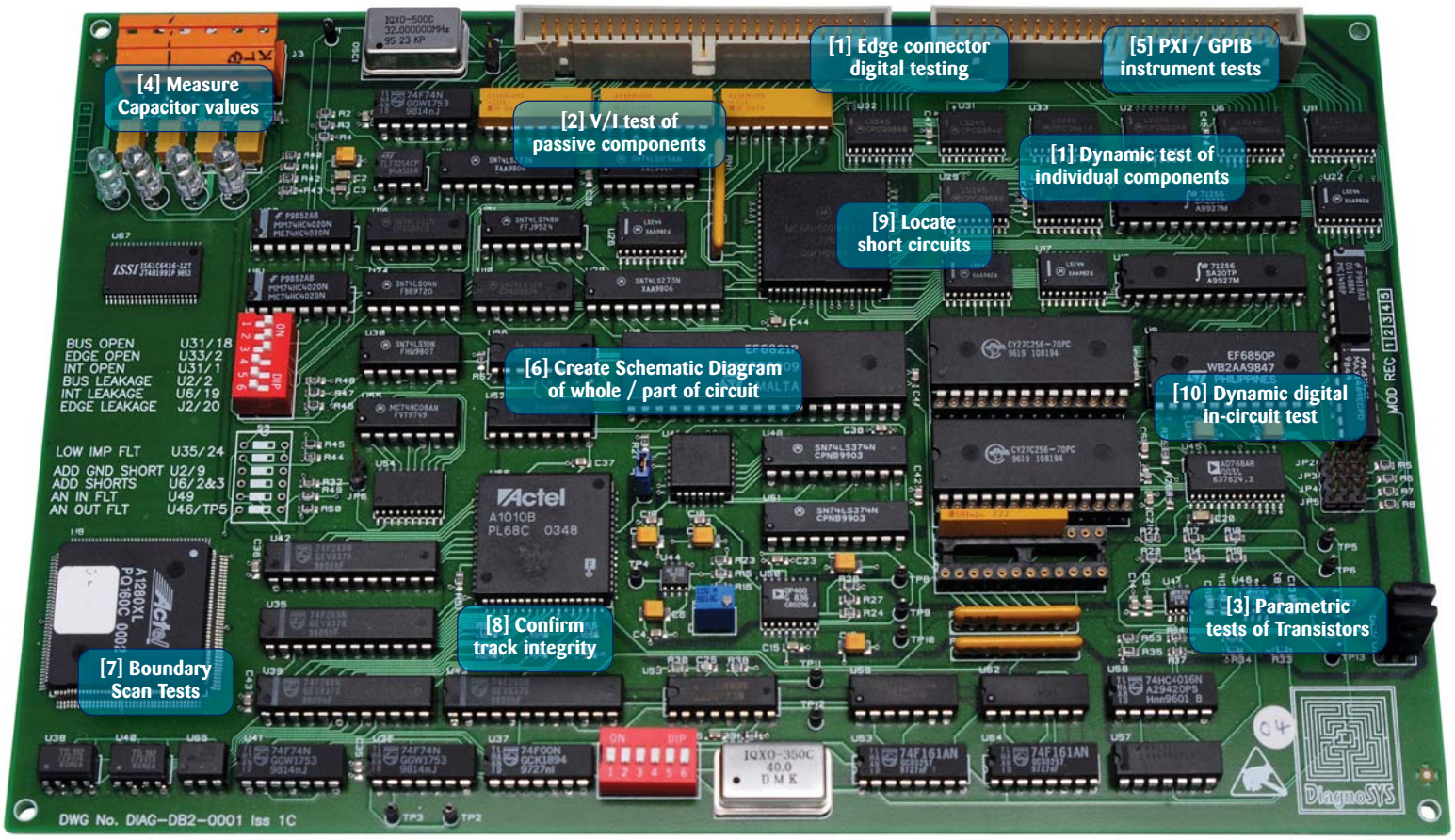
Comprehensive testing to reduce No Fault Founds (NFF)...

Shorts Locator [9]

The Shorts Locator provides an interactive tool that enables you to determine the exact point at which a short circuit has occurred in the circuit being tested. The graphical interface provides an intuitive display of all the relevant data necessary to allow you to easily and accurately define the exact point of the failure.

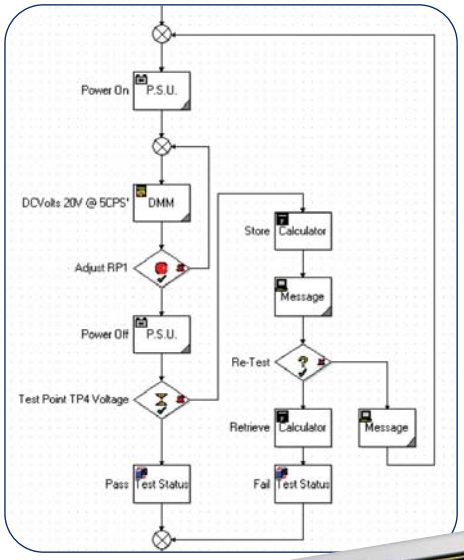
Back Driving [10]

In-circuit testing requires signals to be forced into a circuit often backdriving voltages onto the output of a connected device. To ensure effective testing the PinPoint has a market leading capability to deliver 750mA or more of back driving current on each channel as required giving it excellent backdriving performance and signal quality. Essential for safe testing of a circuit the PinPoint fully complies with the internationally recognised UK Defence Standard.



Powerful Software Features...

The TestVue™ software platform, used on PinPoint II, offers a powerful array of features including TestFlow™, Analog virtual instruments, SeaWave and a simple intuitive user interface.



TestFlow™

TestFlow™ automatically generates a test program, for a board under test, as the components are laid out by the operator. This allows test programs to be edited and constructed in simple flow diagram format. This program writing method means that editing programs is quick and simple. It also gives the programmer the ability to add conditional branches, subroutines, operator test instruction and limits checks at the click of a mouse.

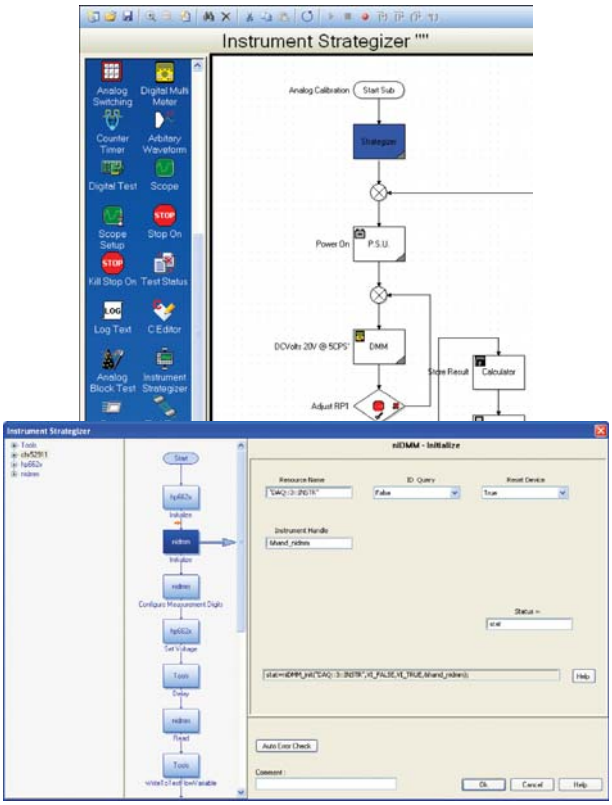
SeaWave

SeaWave enables detailed analysis of logic inputs and outputs to the DUT. This is extremely useful for fault finding and debugging programs. Detailed component information is available from the PinPoint component library. The library, which is being added to all the time, currently contains over 16,000 component test programs including many military components. Many of the components in the library also have data sheets included that can provide valuable information when writing board programs. All these powerful software features and more, presented in an intuitive Windows-based package, ensure that test programs for new boards can be completed in hours/days rather than weeks/months.

C-Script

C-Script complements the TestVue programming environment by allowing you to integrate programs created using the 'C' programming language. Now the full capability of the 'C' programming language is available to you through an icon integrated into the graphic TestVue environment. This means that any program can be executed from the TestVue environment including DLL and Windows API'

Powerful Software Features...



Instrument Strategizer

The Instrument Strategizer allows you to create a complete sequence of tests using different instruments (internal or external) using a graphical interface. External instruments having a VISA* software driver can be immediately integrated into the graphic environment so that you can rapidly start to develop test sequences. The availability of a wide range of external instrumentation further powers your ability to create comprehensive test programs.

*VISA - Virtual Instrument Standard Architecture is a standard defined by Agilent Technologies and National Instruments for communicating with instruments regardless of the interface.

Data Capture Pod (DCP)

As an optional accessory the powerful DCP helps you develop functional test programs for devices that are not included in the extensive TestVue component library. The DCP captures live data, while a device is active in the circuit. Powerful tools in the TestVue software convert the captured data into a functional device program that can be stored for immediate or future use.

Test Program Services

Diagnosys offers test program writing services to help you smooth peaks in demand or to provide a complete turnkey solution ready for use. Supported by a world wide team of experienced engineers test programs are developed, proven and installed to ensure a ready-to-use solution for you.

Training and Development

PinPoint is not just a product, it is a total test and diagnostic solution. As such PinPoint systems include a comprehensive training program to ensure you are ready and can apply the full capability of the system when it is received. Tailored training requirements can also be accommodated through discussions with your local sales contact.

Return on Investment:

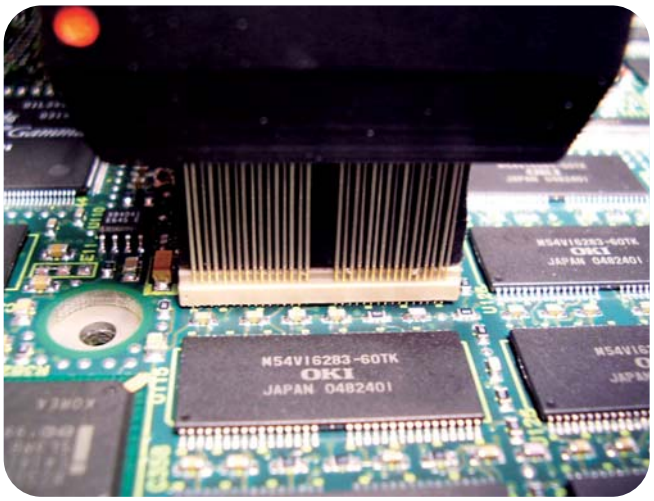
The PinPoint system is in use with major military and commercial customers world wide and has demonstrated excellent returns on investment. This brochure will give you an overview of some key features but our sales team will be happy to discuss the PinPoint in more detail and explore how it can help you.

Keeping your electronics fully operational

PinPoint Overview

The PinPoint gives you the ability to test and fault-find electronic circuits quickly and reliably. Allowing you to select and apply different test techniques on a single circuit, you can ensure comprehensive fault coverage and have full confidence in your circuits:

- Passive in-circuit
- Dynamic digital in-circuit
- Functional Analog in-circuit
- Boundary Scan in-circuit
- Boundary Scan connector
- Advanced Nodal Signatures
- Functional Analog edge connector
- Dynamic digital edge connector
- Cluster test
- Analog functional with external instruments



You select the best no-compromise test methods required to rapidly isolate the cause of failures in your circuit ensuring rapid programming, fast turnaround-times and minimising NFF (No Fault Found) scenarios.

The easy-to-use and intuitive software allows you to access the full power of the PinPoint so that you can concentrate on testing the circuit and finding the fault - quickly, reliably and confidently.

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