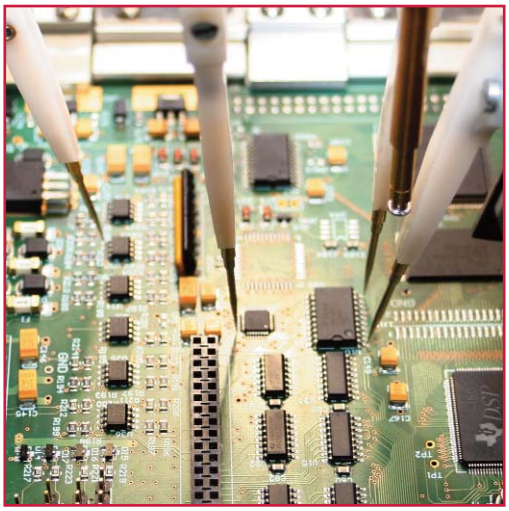
FLYING PROBE SYSTEM

Pilot H4

Pilot Line

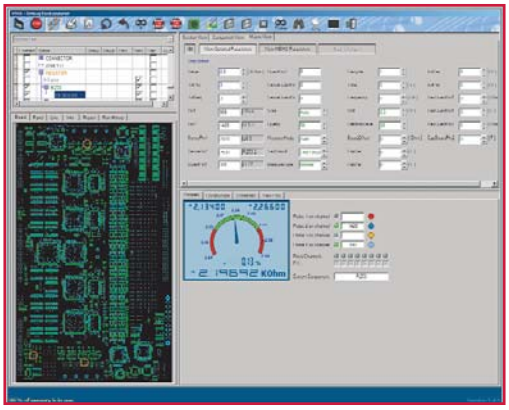
The Pilot H4 represents the best solution for those looking for an economic flying probe system. This is the ideal solution for low to medium volume production with the ability to expand at a future date. Equipped with 4 mobile electrical probes, 1 mobile openfix probe and 2 CCD cameras (optional), the Pilot H4 provides the user with a total of 7 mobile test resources applicable to any point on the UUT. In addition, there are 8 fixed analog channels (optional), 16 openfix sensor channels and power resources available, which can be applied to the UUT via fixed probes positioned on the mobile, bottom-side plate. The test area can accommodate 16” x 20” boards with split test. The ATE rack can be expanded with additional analog channels, connectable to an optional external bed of nails test fixture (TPM).



THE TEST TOOLS AND TECHNIQUES OF THE PILOT H4 INCLUDE:

- FNODE signature analysis on the nets of the UUT
- Standard analog and digital in-circuit test
- Vectorless tests (JSCAN and OPENFIX) to test ICs for opens and shorts
- PWMON net analysis for power on the boards
- Continuity test to detect open tracks on the PCB
- Visual tests for component presence/absence and rotation
- Optional functional test and boundary scan test capabilities

All of these measurement capabilities and techniques can be combined in a single test program, and the same test program can run using the flying probes or on an external bed of nails fixture, giving the user the maximum flexibility to manage changing production requirements.



VIP PLATFORM

The Pilot H4 is based on the Seica VIP platform, which includes the innovative VIVA software. Test program development is organized in 3 simple steps: “Prepare”, “Verify” and “Test”, where the user is guided through a series of automated operations in an intuitive, self-explanatory environment, drastically reducing programming time and minimizing errors and omissions, ensuring the quality of the final test program. For special applications, the extremely open architecture of the VIP platform enables easy integration of external software modules and/or hardware, such as RS232, USB ports, GPIB and PXI/VXI protocols.

TECHNICAL TABLE

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PROBES AND CAMERAS

Probes Position - Test Side	Top
Maximum Number of Probes	5
Number of Electrical Probes	4
Number of Openfix Probes	1
Number of Fixed Probes / Upgrade Up To	8/328
Digital Embedded Channels	4
Number of CCD Cameras	2
Automatic Marker Recognition	Yes
Automatic UUT Planarity Compensation	Yes
Thermal Scan Resource	1 (option)

BOARD CLAMPING SYSTEM, UUT SIZES AND WORK AREA (*)

Board Clamping System	Manual
Active Test Area	400 x 500 mm (15.74 X 19.68")
Minimum Board Size*	35 x 35 mm (1.37 x 1.37")
Maximum Board Thickness	7 mm (0.27")
Minimum Board Thickness	0.3 mm (0.00118")
Maximum Component Height	90mm (3.57") top - 100 mm (3.93") Bottom
Board Loading	Horizontal
UUT Edge Clearance	2 mm

PITCH

Minimum Pad Pitch	200 μm (8 mils)
Minimum Pad Size	75 μm (3 mils)

PROBE FEATURES

Z-axis Travel	-3.0 mm to 40 mm programmable
Contact Force	25 g - 100 g programmable

TESTS AND MEASUREMENTS (INSTRUMENTS DSP)

Voltage Generator 1 DC/AC (DRA)	±1 mV to ±10 V (±0.1 %)
Voltage Generator 2 DC/AC (DRB)	±1 mV to ±10 V (±0.1 %)
Voltage Generator 3 DC/AC (DRC)	±25mV to ±100V (±0.2 %)
Current Generator DC/AC	±1 nA to ±0.5 A (±0.1 %)
Waveform Generator 1 Sin, Tri, Arbitrary (DRA)	1 Hz to 3 MHz (±1 mHz) - ±10 V max
Waveform Generator 2 Sin, Tri, Arbitrary (DRC)	1 Hz to 10 KHz (±10 mHz) - ±100V max
Voltage Measurements DC/AC	±200 μV to ±100 V
Current Measurements DC/AC	±3 nA to ±0.5 A
Frequency Measurement	0.1 Hz to 10 MHz
Digital Embedded Channel	±12 V - 500 mA - 10 MHz
Resistance Measurement	1 mΩ to 100MΩ
Capacitance Measurement	1 pF to 1 F
Inductor Measurement	1 μH to 1 H
Zener Measurement	up to 100 V (200 V option)
Automatic Visual Inspection	Yes

GENERAL REQUIREMENTS

Air Flow	0.21 CFM
Temperature Range	25°C ± 10°C
Humidity	30 - 80 %
System Power	220 V/50 Hz 14 A, 110 V/60 Hz 26 A
Power Consumption	3.0 kW max
Weight	1400 kg (3087 lbs)
Length	133 cm (52.36")
Width	169 cm (66.54")
Height	170 cm (66.92") with monitor

SOFTWARE FEATURES

PC/Operating System	Windows XP/Windows 7
Software	VIVA
Automatic Test Generation	Yes
Autodebug	Yes
Data Input Format	CAD Data/Manual

**Universal carrier for unique board configurations.*

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