



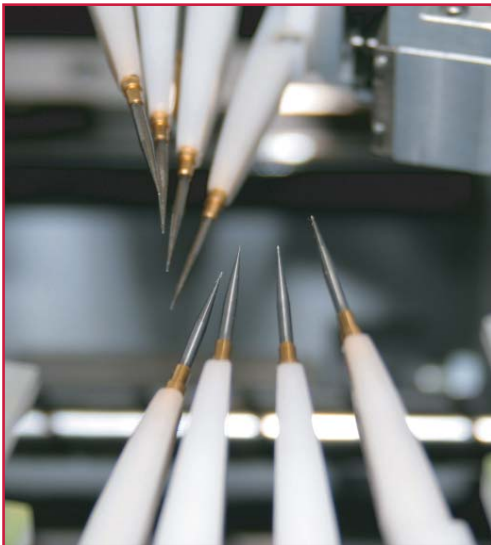
FLYING PROBE SYSTEM

Pilot V8

Pilot Line



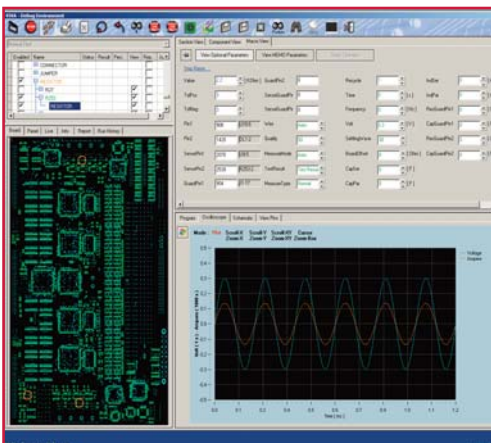
The Pilot V8 represents the latest frontier in flying probe test technology, and is the complete solution for those who want maximum performance: the highest test speed, test coverage and flexibility, whether they are testing prototypes, manufacturing lots, or repairing any type of board. Its vertical architecture is the optimum solution for probing both sides of the UUT simultaneously, increasing test throughput and flexibility while guaranteeing fast, precise, reliable and repeatable probing, and full availability of all the mobile resources for testing the UUT. **This solution represents an important technological innovation in “double-side” flying probe test, overcoming the intrinsic limitations of horizontal systems.** The Pilot V8 is equipped with 8 electrical flying test probes (4 on each side), 2 Openfix flying probes (1 on each side) 2 power flying probes (1 on each side) and 2 CCD cameras (1 on each side), for a total of **14 mobile resources available to test the UUT.** The mobile power probes are another important innovation which enables the power up of the UUT without requiring any additional fixed cables, allowing the easy implementation of functional test.



The test tools and techniques of the PILOT V8 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 with power on the board
- 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
- On Board Programming tools for digital devices

Of course all of these measurement capabilities and techniques can be combined in a single test program, and important innovations such as the “net-oriented”, FNODE and PWMON measurement techniques provide high fault coverage with significant savings in terms of programming and test time. In addition, with its full complement of test resources, **the Pilot V8 can utilize the test programs developed on any other Seica flying probe system**, since it has the capability to operate in every possible mode (2 or 4 probes on a single side or on both sides)



VIP PLATFORM

The PILOT V8 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 practically eliminating the possibility for error and omissions, consequently ensuring the quality of the final test program. For special application, the extremely **open architecture of the VIP platform** enables easy integration of external software modules and/or hardware, such as via RS232, USB ports or GPIB and PXI/VXI protocols.

TECHNICAL TABLE

PROBES AND CAMERAS

Probes Position - Test Side	Front/Rear
No. Maximum Resources	12
No. of Electrical Probes	8 (4 front, 4 rear)
No. of Openfix Probes	2 (1 front, 1 rear)
No. of Power Probes	2 (1 front, 1 rear)
No. of Fixed Probes / Upgrade Up To	8/328
Digital Embedded Channels	4
Number of CCD Cameras	2 (1 front, 1 rear)
Automatic Marker Recognition	Yes
Automatic UUT Warpage + Compensation	Yes

BOARD CLAMPING SYSTEM, UUT SIZES AND WORK AREA

Board Clamping System	Manual
Active Test Area	515 x 610mm (20.27 x 24.00")
Maximum Board Size	520 x 610mm (20.47 x 24.00")
Maximum Board Size	20 x 20 mm (0.78 x 0.78")
Maximum Board Thickness	5 mm (0.19")
Minimum Board Thickness	0.3 mm (0.00118")
Maximum Component Height	40 mm (1.57")
Board Loading	Vertical
Automatic Loader	Not available

PITCH

Minimum Pad Pitch	200 μ m (8 mil)
Minimum Pad Size	75 μ m (3 mil)

PROBE FEATURES

Z-axis Travel	-3 mm to 37.5 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 ($\pm 0.1\%$)
Voltage Generator 2 DC/AC (DRB)	± 1 mV to ± 10 V ($\pm 0.1\%$)
Voltage Generator 3 DC/AC (DRC)	± 25 mV to ± 100 V ($\pm 0.2\%$)
Current Generator DC/AC	± 1 nA to ± 0.5 A ($\pm 0.1\%$)
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) - ± 100 V max
Voltage Measurements DC/AC	± 200 μ V 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 m Ω to 100 M Ω
Capacitance Measurement	1 pF to 1 F
Inductor Measurement	1 μ H to 1 H
Zener Measurement	up to 100 V
Automatic Visual Inspection	Yes

GENERAL REQUIREMENTS

Air Flow	0.71 CFM
Temperature Range	25°C \pm 10°C
Humidity	30 - 80 %
System Power	220 V/50 Hz 12 A, 110 V/60 Hz 24 A
Power Consumption	2.5 kW max
Weight	1800 kg (3978 lbs)
Length	175 cm (68.9")
Width	123 cm (48.4")
Height	203 cm (79.9")
UUT Edge Clearance	2 mm

SOFTWARE FEATURES

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

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