



FLYING PROBE SYSTEM

Pilot V4

Pilot Line



Pilot V4 is an excellent “combinational” test solution for those who require a flying probe solution for in-circuit test, and who also have functional test requirements and/or need to frequently apply power to enable “active” tests on the UUT. The Pilot V4 system is equipped with 4 flying probes, 1 openfix probe and a CCD camera for a total of 6 mobile test resources, all located on the rear side of the system. This allows full access to the other side of the UUT where the user can apply fixed resources (additional test points, power/ground cables, etc.) needed to execute specific functional tests. The standard configuration includes 8 fixed analog channels, 16 openfix sensor channels and power resources.

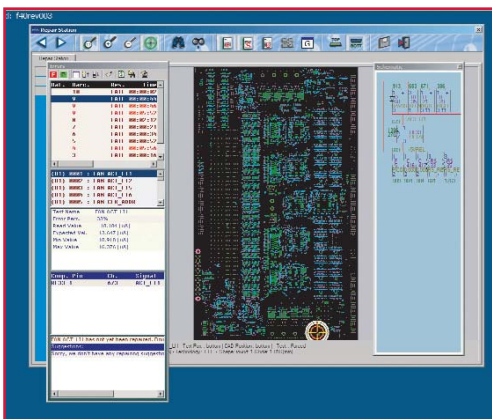
The **innovative vertical architecture** of the Pilot V4 presents a combination of optimum ergonomics and high performance flying probe test, eliminating potential board oscillation allowing high speed, precision probing, with full availability of all the mobile resources for testing the UUT.



The test tools and techniques of the PILOT V4 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.**



VIP PLATFORM

The PILOT V4 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 RS232, USB ports or GPIB and PXI/VXI protocols.

TECHNICAL TABLE

PROBES AND CAMERAS

Probes Position - Test Side	Top
No. Maximum Probes	5
No. of Electrical Probes	4 (4 rear)
No. of Openfix Probes	1 (1 rear)
No. of Fixed Probes / Upgrade Up To	8/328
Digital Embedded Channels	4
Number of CCD Cameras	1 (rear)
Automatic Marker Recognition	Yes
Automatic UUT Warpage Recovery	Yes

BOARD CLAMPING SYSTEM, UTT SIZE AND WORK AREA

Board Clamping System	Manual
Active Test Area	515 x 610 mm (20.27 x 24.00")
Maximum Board Size	520 x 610 mm (20.47 x 24.00")
Minimum 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 mils)
Minimum Pad Size	75 μ m (3 mils)

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 (± 0.1 %)
Voltage Generator 2 DC/AC (DRB)	± 1 mV to ± 10 V (± 0.1 %)
Voltage Generator 3 DC/AC (DRC)	± 25 mV to ± 100 V (± 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) - ± 100 Vmax
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	1m Ω to 100M 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	1400 kg (3094 lbs)
Length	175 cm (68.89")
Width	123 cm (48.42")
Height	203 cm (79.92")
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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