

AutoPoint Multi-Axis Robotic System (AP-MARS)

Automatic probing system for simplified reverse engineering and testing of circuit card assemblies

The AutoPoint Multi-Axis Robotic System (AP-MARS) combines the power of PinPoint technology, TestVue software, and robotic probing to meet today's demanding circuit card test requirements, yesterday's obsolescence issues, and tomorrow's life cycle sustainment needs all from one, integrated system.



Features

- Generate circuit card data for schematic generation
- Create schematics for undocumented boards
- Generate BoMs, Net Lists, and X.Y Coordinates
- Use data to build test routines for existing CCAs or new manufactured cards
- Create bare and populated board test routines
- Power OFF Opens, Shorts, Signature Analysis, Resistance, Inductance and Capacitance
- Power ON Voltage, Frequency, Pulse, Waveforms, Stimulus Response
- Optional:
 - Full PinPoint Integration
 - Automated Guided Probe
 - Boundary Scan
 - 3rd Party Instrumentation

KEY BENEFITS

- Circuit Interrogation Analysis
- Advanced Circuit Diagnostics
- Automated Schematic Generation
- Automated Testing and Troubleshooting
- Fixtureless Test testing with rapid program development
- Integration of multiple test techniques and equipment





Circuit Interrogation Analysis

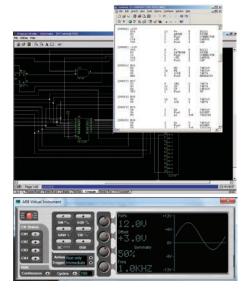
The AP-MARS employs a unique technique referred to as, "Circuit Interrogation Analysis (CIA)", which drastically reduces the amount of probing iterations required to learn the interconnectivity. The data collected during this process can also be used as part of the diagnostic and test strategy, if required.

Advanced Circuit Diagnostics

Multiple test techniques can be applied to inspect and test the Circuit Card Assembly for faults such as: opens, shorts, incorrect values, defective components, voltage levels, frequencies, signal variations, and more.

Integrated PinPoint Test

Full integration with a PinPoint system allows all the features of a PinPoint to be accessed while using the prober. Power and I/O signals are routed to the edge connector while the moving probes can be employed both as guard points or as a guided probe.



PinPoint

PinPoint provides **UUT** power, analog instruments, signature analysis, functional edge test, boundary scan, and more. It mounts in 19" rails, conveniently located in the system cabinet.



Automated Schematic Generation

A key advantage in maintaining and sustaining electronic assemblies is to have electrical schematics that show the connectivity and configuration of the circuit card. Astronics has combined its schematic generation software with a multi-head flying probe system that automates the process and makes schematic generation possible for either through hole or surface mount technology.

Get Started Today

For additional details, please contact Astronics Test Systems.

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• Number of test heads: 2 Maximum size of board under test:

- 27" x 23" (68.6 cm x 58 cm)
- Maximum probing area: 19" x 12" (48.3 cm x 30.5 cm)
- Maximum board component height: 4.8" (12.2 cm) • Dimensions:
- 47" W x 61.5" H x 35.75" D (119.4 cm W x 156.2 cm H x 90.8 cm D)
- Cabinet internal dimensions: 4.5" W x 29" H x 33" D $(114.3 \text{ cm W} \times 73.6 \text{ cm H} \times 83.8 \text{ cm D})$
- Accuracy and resolution: 0.0003937" (+/- 10 microns) for Top Slot (6" above plate) at 0.00002" (0.4 microns)

