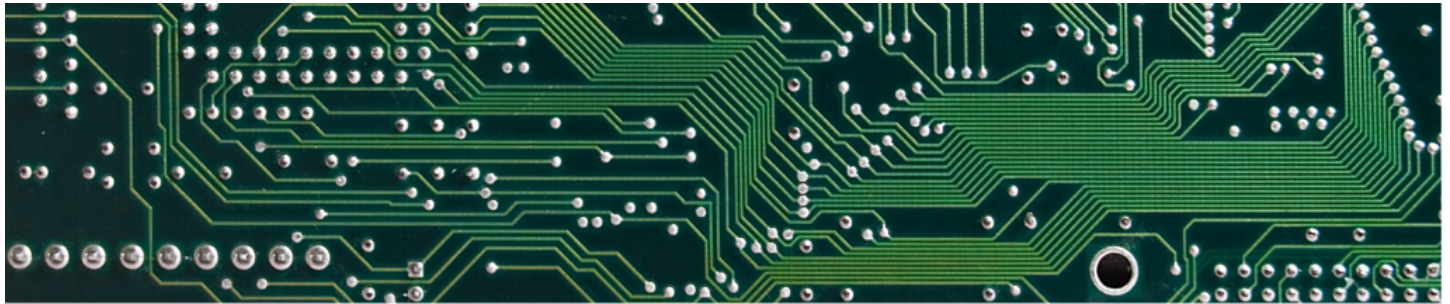


Our Equipment Calibration and Preventive Maintenance Program



Shenzhen, Guangdong Oct 8, 2026 (Issuewire.com) - A placement machine is only as accurate as its last calibration. A reflow oven is only as reliable as its last temperature verification. Equipment drift is inevitable, but undetected drift guarantees quality problems. As a **High-Quality PCBA Manufacturer**, we maintain a comprehensive calibration and preventive maintenance (PM) program that ensures every machine operates within specified tolerances. This metrological discipline defines our **China [Advanced Pcb Manufacturing](#) Factory** and our **OEM [Pcba Manufacturing Services](#)**.

Calibration vs. Preventive Maintenance

Calibration verifies and adjusts measurement accuracy—ensuring a machine reports correct values. Preventive maintenance replaces wear items and cleans mechanisms—preventing breakdowns and drift. Both are essential. Our program includes scheduled calibration for all measurement-critical equipment (printers, SPI, AOI, X-ray, multimeters, thermometers) and scheduled PM for all production equipment (printers, placement machines, reflow ovens, testers, conveyors).

Calibration Traceability and Standards

All calibrations are traceable to international or national standards (ISO/IEC 17025 accredited laboratories). Critical parameters calibrated include placement machine accuracy (using glass scales or certified test boards), reflow oven temperature uniformity (profiler verification against reference), SPI volume accuracy (certified test targets), AOI illumination and camera calibration, and torque drivers and gauges used for hardware assembly.

Calibration Frequency

Calibration intervals are based on manufacturer recommendations, equipment usage, and historical stability. High-precision placement machines undergo full calibration quarterly. SPI and AOI systems calibrate monthly. Reflow oven temperature sensors are verified weekly. Hand tools (calipers, torque drivers) calibrate semi-annually. Any equipment showing drift before its scheduled calibration is pulled and recalibrated immediately.

Preventive Maintenance Schedules

Our PM program covers daily operator checks (cleanliness, air pressure, vacuum, emergency stops), weekly technician maintenance (lubrication, filter cleaning, belt tension), monthly engineering deep maintenance (feeder calibration, camera cleaning, software verification), and quarterly or annual manufacturer-recommended overhauls (bearing replacement, motor cleaning, firmware updates). All PM actions are logged with date, technician, and findings.

Equipment Qualification After Maintenance

Following any significant maintenance or calibration adjustment, equipment must be re-qualified before returning to production. This includes placement machine test runs with verification boards, reflow oven profile validation against a standard test vehicle, and SPI/AOI correlation test against known-good and known-bad samples.

Non-Conforming Equipment Protocol

If calibration or PM reveals a machine operating out of specification, we immediately flag it as non-conforming, quarantine any product processed since the last verified calibration, investigate the root cause of drift or failure, perform corrective maintenance and recalibration, and disposition quarantined product (re-inspect, re-test, or rework as needed).

Precision is not a one-time achievement—it is a daily discipline of verification and maintenance. Our calibration and PM program ensures that every machine, every measurement, and every assembly meets the tolerances your product demands.

Confidence requires proof. Contact us to learn how our equipment qualification program protects your product from undetected machine drift.

Media Contact

Shenzhen STHL Electronics Co., Ltd.

*****@sthlpcba.com

<https://www.sthlpcba.com/>

Source : Shenzhen STHL Electronics Co., Ltd.

[See on IssueWire](#)