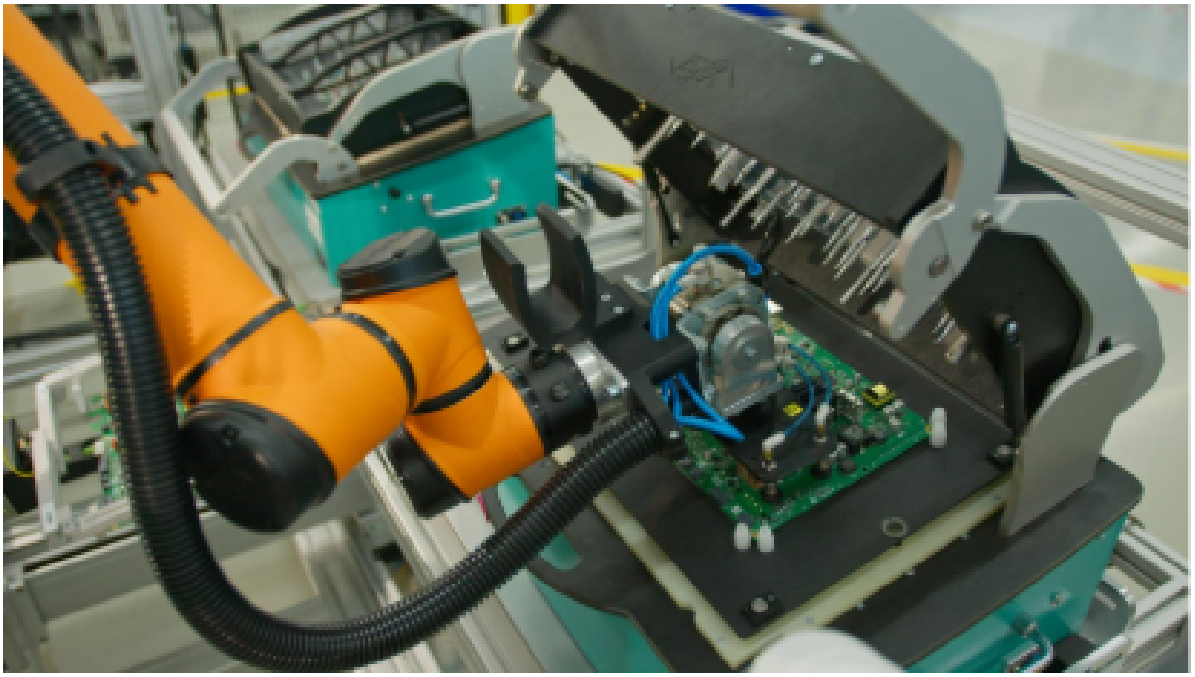
The Future of PCBA Testing Automation

In electronics manufacturing, testing has become a strategic process that directly shapes efficiency, quality, and profitability. With rising labor costs and a **shortage of skilled operators across Europe**, manufacturers **need to reduce manual testing** and focus their people on higher-value work. Automation has become essential to maintain competitiveness and productivity in European electronics production.



To meet these challenges, **KINALI** and **ATX Hardware HmbH** have joined forces. By combining the **Test-it-off** automation platform from KINALI with **ATX automatic opening and closing (AOC E/P) fixtures**, a next-generation automated PCBA testing solution is born. Their integrated solution follows **Industry 4.0** principles and moves manufacturers closer to fully automated, Dark Factory-ready production.

Built around a **collaborative robot**, Test-it-off automates the use of **ICT and FCT testers** and connects them with cameras, conveyors, and factory IT systems. Maximum efficiency is achieved through parallel testing. As ATX automatic closing fixtures complete one test, the collaborative robot is already preparing the next board into the PCBPlacer. In a dual-fixture configuration, the robot alternates between fixtures so that one is always testing while the other is being loaded. This overlapping operation eliminates idle time and significantly increases throughput within the same footprint.

With **fixture staging**, **10-minute product changeovers**, and **60-minute NPI setup** through an **easy no-code configuration**, one automated cell like this can handle many different PCBA types. The result is higher tester utilization, lower labor costs,

and improved traceability, giving manufacturers a highly adaptive solution that is tailored to their specific production needs.

Visit: KINALI – Hall A1.434 | ATX – Hall A1.326

Learn more: www.testitoff.com / www.atx-hardware.de