



a coesia brand

Electronics production that's state-of-the-art

Top quality on flexible and perfectly balanced lines



The challenge

System Electronics has been a driver of innovation in the area of industrial and power electronics since the 1980s. With its diverse spectrum of high-quality electronics, the company is now consistently targeting high-growth areas such as e-mobility and AI. Its customers demand top quality and flexibility. It's not unusual for System Electronics to process highly complex circuit boards with 8 to 15 layers for premium car brands, Formula 1 racing cars and MotoGP motorcycles. With all this highly flexible high-mix/low-volume production, the company nevertheless focuses on achieving maximum cost-effectiveness through a high level of automation and perfectly balanced production lines.



"Our customers look for excellence. SIPLACE SX placement machines perfectly reflect our core competencies of flexibility and quality."

Andrea Gozzi,
General Manager at System Electronics

230
thousand

SMT components
per hour

< 1
percent

total defect rate

Maximum
component flexibility:

0.4 × 0.2 mm
up to
200 × 100 mm

Processing of highly
complex circuit boards
with up to

15
layers



Andrea Gozzi, General Manager at System Electronics.

About System Electronics

Modena-based System Electronics, a business unit of System Ceramics and part of the Coesia Group, has been a leader in the areas of electronics and mechatronics since the 1980s. It supports innovations in all industrial fields with electronic components and custom-tailored automation solutions. System Electronics' highly demanding customers come from a wide range of sectors such as automobile manufacturing and the aerospace, biomedical, logistics, marine and electromobility industries. Its portfolio is split into four product lines: Custom Devices and Automation, HMI IPC, EMS, and Artificial Intelligence. System Electronics employs more than 80 people and has a modern production center that's state-of-the-art.

not only by its tier-one customers in the automobile and motorsport sectors. Thanks to the high process stability and low downtimes, System Electronics expects to double its production volume.

Based on its positive experience, System Electronics plans to further expand its outstanding cooperation with ASMPT. In addition to considering an OSC Package for power electronics components, the company plans to automate even more of its operations with additional applications from the WORKS software suite.

The solution

To meet the high requirements of its customers, System Electronics depends on manufacturing technology from ASMPT. The Modena facility operates two SMT lines with [DEK NeoHorizon](#) solder paste printers whose results are instantly inspected with the [Process Lens HD](#) SPI system and automatically corrected as needed with the help of [WORKS Optimization](#) expert software from ASMPT.

SIPLACE SX for maximum flexibility

The solder paste printers and SPI systems create the foundation for the three [SIPLACE SX](#) placement machines per SMT line that can handle everything from the smallest passive components to large and heavy connectors in a single run without having to change the setup. Based on software commands, the flexible CPP placement head switches between pick-and-place, collect-and-place and mixed modes as required. Both end-of-line machines are equipped with waffle pack changers whose trays can be replaced and refilled without having to stop the line. Thanks to this combination of equipment, System Electronics achieves maximum process stability and processing flexibility.

Integrated into digitally networked production

ASMPT's solution also demonstrates its flexibility when it comes to being part of System Electronics' digitally networked production environment. Standardized interfaces integrate the machines seamlessly into a non-proprietary tracing system that ensures transparency and process reliability by tracking each individual circuit board through its production flow.

The success story

By using ASMPT solution, System Electronics is achieving impressive results. The production lines operate in a highly automated manner and stay perfectly balanced even during speedy product changeovers without the need for cumbersome configuration or head changes. The company's remarkably low defect rate of less than one percent is appreciated

ASMPT

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