



esmo group Launches X-change Cart for Single-Operator Load Board Handling

Faster, safer, and easier changeovers engineered for high-mix semiconductor test environments

ROSENHEIM / KUALA LUMPUR, 5 May 2026 — [esmo group \(esmo\)](#), a leading global full-service systems integrator, developer, and supplier of advanced automation solutions for the semiconductor test industry, today announces the debut of its **X-change Cart**. A dedicated, semi-automated Device Interface Board (DIB) exchange system that enables a complete load board changeover by a single operator in under one minute, the X-change Cart addresses the safety, efficiency, and reliability challenges associated with manual board handling on the semiconductor test floor.



In high-mix semiconductor test environments, load board changeovers are a frequent and operationally significant activity. The reliance on manual handling has long presented challenges around changeover time, operator safety, and the risk of damage to high-value boards.

“Across test floors, we kept seeing the same pattern,” said Josef Weinberger, Head of Business Unit, esmo semicon. “Board changeovers were slow, physically demanding, and too dependent on individual technique. In tight spaces, that’s where mistakes happen and time is lost. That observation drove us to build a dedicated solution that makes changeovers fast, repeatable, and manageable by a single operator in under a minute.”

Engineered for the Modern Test Floor

The X-change Cart removes the physical demands and variability of manual board handling from the equation entirely. Through a structured, HMI-controlled process, a single operator can lock, rotate, and transfer a board to the tester within a minute. The ability to carry two boards in a single trip makes that timescale achievable in practice. Thoughtful design details, including a $\pm 180^\circ$ rotation at the locking mechanism and a $\pm 90^\circ$ tower swivel, address the real-world constraints of a busy test floor.

Broad compatibility with leading ATE platforms (e.g. Teradyne, Advantest, SPEA and more) facilitates integration into existing multi-vendor environments without reconfiguration, allowing OSATs and IDMs to realise multiple benefits without disruption to their current setup.

For facilities with longer-term automation objectives, an optional configuration allows the interface tower to be mounted onto a customized AGV or AMR, providing a practical upgrade path toward autonomous test floor operations. The modular design further allows additional features to be incorporated as operational requirements evolve.

Weinberger added, “Reliability in production comes down to the details. The gripper head is engineered to perform consistently under real production conditions, with ESD-safe construction ensuring the board is protected at every point of contact. That level of engineering discipline is what makes the difference on a real production floor.”

X-change Cart Key Features

- Modular DIB exchange system for reliable, error-free board loading and unloading
- One-person operation — complete board change in under one minute
- Transports two load boards simultaneously for rapid exchange
- Full multi-axis rotation: $\pm 180^\circ$ at locking mechanism | $\pm 180^\circ$ Y-axis | $\pm 90^\circ$ Z-axis
- Compatible with leading ATE platforms — Teradyne, Advantest, SPEA and more
- Interfaces with test head, prober, DIB-loader, storage rack, and maintenance workbench
- Tower swivels $\pm 90^\circ$ for use in narrow corridors and constrained test floor layouts
- Integrated Human-Machine Interface (HMI), sensor detection, safety hand-brake, and modular battery
- *Optional*: fully automated configuration mountable on AGV or AMR

The **X-change Cart** will be available for live demonstration at the esmo booth throughout **SEMICON Southeast Asia 2026**. Visit esmo at **Booth 2145, Hall 8, Level 2, MITEC Kuala Lumpur** from **5–7 May 2026**, or contact sales@esmo-asia.com to arrange a meeting or request further information.

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About esmo group

Established in 2001, the esmo group is an international enterprise that provides innovative and advanced engineering services to different sectors across a variety of industries:

- esmo automation is a full-service provider that offers a comprehensive range of product and service offerings for the machinery engineering and automation technology industries.
- esmo semicon is one of the leading suppliers of manipulators, docking and interfacing components, and handling systems, such as the [talos](#), for the global semiconductor industry.

We develop customized solutions at an excellent price-performance ratio for our customers globally. Our strong portfolio of leading-edge technology, state-of-the-art machinery, innovative production engineering and efficient processes allows us to meet even the most challenging requirements within short timeframes. Our extensive experience, competence, and colleagues’

motivation and commitment make up the strong and reliable framework behind our customers' success.

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