April 2026
FUJI CORPORATION

Fuji to Conduct R&D on High Accuracy Semiconductor Die Placement Processes under SATAS Initiative

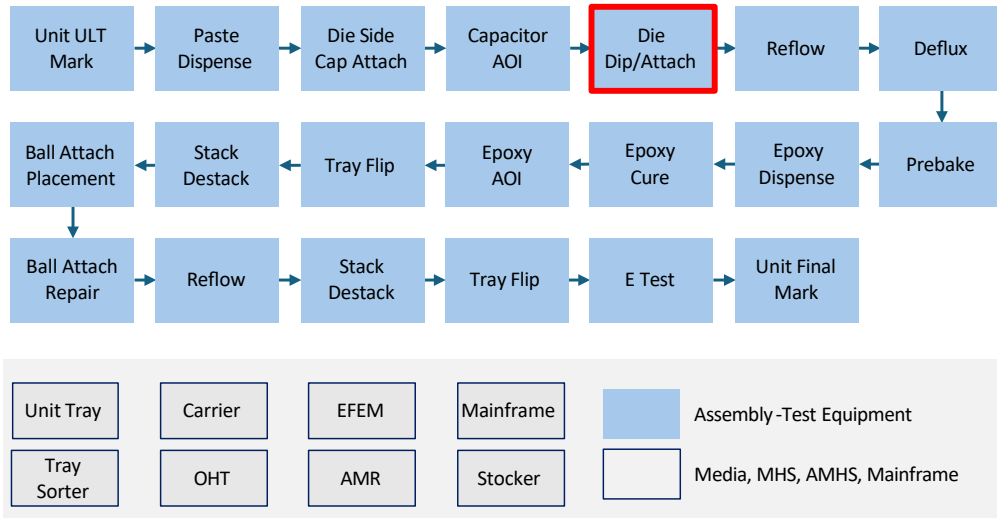
- Contributing to the advancement of automation and standardization in semiconductor back-end manufacturing through R&D using Fuji's machines -

Fuji Corporation (headquarters: Chiryu, Aichi; Representative Director, President and CEO: Joji Isozumi; hereinafter referred to as "Fuji") has joined the Semiconductor Assembly Test Automation and Standardization Research Association (SATAS), established in April 2024. Fuji has been officially designated to lead the research and development (R&D) for die placement processes (die attach), which requires high positioning accuracy, within SATAS's R&D initiative focused on the automation and standardization of semiconductor back-end manufacturing.
Consequently, our SMT pick and place machine, the NXTR A model, has been selected for use in this R&D project. Through research and development of die placement process and its automation technologies using the NXTR, Fuji will contribute to advancing automation and standardization in semiconductor back-end manufacturing.

Top: The NXTR A model for use in R&D

Right: Process involving Fuji: "Die Dip/Attach"

Test vehicle manufacturing equipment and process flow



■ Die placement process that requires high accuracy

Die placement is one of the critical processes that determine the performance and reliability of next-generation semiconductor packages, which are becoming increasingly advanced and higher-density. In recent years, semiconductor manufacturing has demanded higher placement accuracy and stable process control due to the advancement of chiplet architectures and 3D packaging. Fuji will be responsible for research and development of high-accuracy die placement processes.

■ A technological foundation that achieves both high accuracy and automation

At Fuji, we have honed our high-accuracy placement technology in the SMT field while also developing our proprietary smart factory concept. Through these initiatives, we have put automation technology into practical use across entire production lines, including parts supply. We have established a technological foundation capable of meeting the demands for high accuracy and automation required in the semiconductor back-end process. This research and development builds on our technological foundation.

■ Practicality and reliability built on a standard-machine platform

The NXTR A model used in this research and development project employs a configuration based on the standard specifications, combined with options tailored for this specific research and development effort.
By using our standard machines rather than dedicated machines as the foundation, we ensure practicality and high reliability with future production deployment in mind.

Comment from Takeshi Sato, Fuji Robotic Solutions Division General Manager

Fuji's assigned field within SATAS has now been finalized, and our machine has been adopted for R&D purposes in the die placement process. This field, within increasingly sophisticated semiconductor back-end manufacturing, demands a higher level of placement accuracy and stable automation technology. We will steadily advance R&D as a member of the project by integrating the high accuracy placement technology and automation technology we have cultivated over the years.

Future outlook

Going forward, Fuji will build upon the technical insights and expertise in the semiconductor back-end manufacturing field gained through this initiative and advance further technological development with an eye toward applying these technologies in our mass-production machines. Furthermore, by deepening the integration of placement technologies and related automation technologies throughout the entire production line, we aim to contribute to production efficiency and stable operation in semiconductor manufacturing, while also strengthening our technical foundation.

Related releases

June 19, 2025: NEDO announces decision on pilot line construction site and start of construction for "Post-5G Information and Communications System Infrastructure Strengthening Research and Development Project / Development of Advanced Semiconductor Manufacturing Technology / Research and Development on Development and Demonstration of Semiconductor Post-Process Automation and Standardization"

About the Semiconductor Assembly Test Automation and Standardization Research Association (SATAS)

The Semiconductor Assembly Test Automation and Standardization Research Association (SATAS) is a technology research association established in April 2024 with the objective of automating and standardizing the semiconductor back-end manufacturing (package assembly and testing).

Focusing on semiconductor package assembly and testing processes, which are critical to cost-effectiveness in semiconductor production, we are committed to driving standardization across equipment and systems essential for automation and operational efficiency. These standards will be validated through prototypes, commercial models, and pilot-line testing. Advancing semiconductor package assembly and testing processes through technologies essential for back-end automation, open industry standards, and next-generation equipment—developing and implementing equipment, validating their performance on an integrated pilot line, and targeting commercialization from 2028 onward to improve energy productivity and reduce material waste bringing the knowledge and technologies gained from this project to both existing and new fabs.

SATAS official website: https://satas-cip.jp/en/

Company Profile

About Fuji

Company name	FUJI CORPORATION
Representative	Joji Isozumi, Representative Director, President & CEO
Address	19 Chausuyama, Yamamachi, Chiryu, Aichi 472-8686 Japan
Established	April 1959
Business details	Development, manufacturing, and sales of SMT pick and place machines and machine tools
Capital	5,878 million Yen
URL	https://www.fuji.co.jp/en/ (Official website) https://smt.fuji.co.jp/en/ (SMT website)

Contact

Fuji Corporation Robotic Solutions Division (Contact form)
https://smt.fuji.co.jp/en/contact/