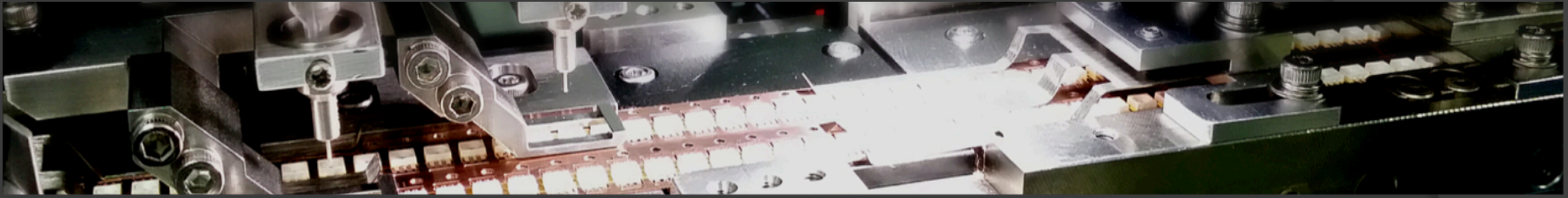


Company Profile

**AUTOMATION
TECHNOLOGY CENTER
PTE LTD**

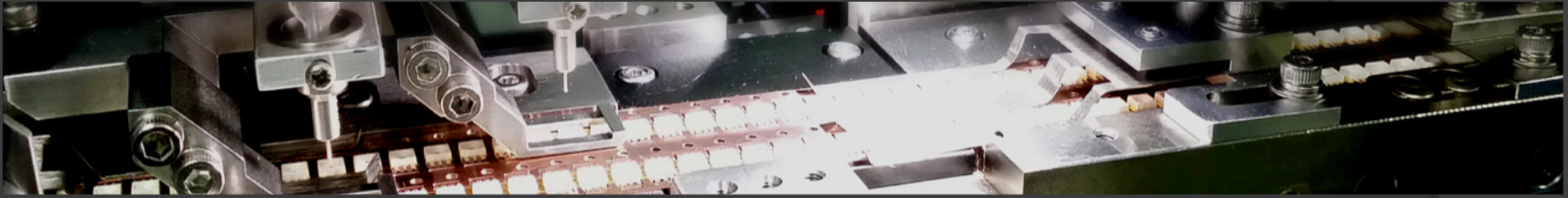


Company Vision

To be the leader in process solution provider for the semiconductor industries.

In order to achieve our vision, we have to listen to the need of our clients & what is required of them, analyze the process and devise ways to achieve the requirements.





Company Background

- Start-up in October 2004
- 26 years experience in die-bond related business (American, German, Japanese process technology)
- Developed Texas Instruments die bonder software for internal TI customers in Taiwan & Malaysia
- Developed real-time PCI hardware drivers for machine to run under windows platform (all Tosok machines uses ATC's real-time drivers)
- Developed Ethercat real-time drivers for Motion/IO control, enable real-time display of force and air flow system
- Developed vision system for die-bonders (all Tosok machine uses ATC's vision library)
- Developed all application & process software for Tosok Dbd4000, Dbd4200, Dbd4600, Dbd4000s, Dbd4300 series of die-bonder
- Developed ATC DB1001 (linear motor) and DB1200 (ball-screw) Epoxy Die Bonders.



Customer List

Nidec Tosok

- ATC developed real-time machine control & vision software for their die-bonders, mainly the 4000 series.



Yamaha IM division, Japan

- ATC supplies them OCR library, Traceability product, parts store management system for Oriental Motor, production monitoring system for Samsung



Infineon (Germany & Melaka)

- End-user for Nidec Tosok die-bonders. Speed and quality improvement projects have been done for Infineon from year 1999 (1st tosok dbd4000 machine) till now.



Osram (Germany & Penang)

- End-user for Nidec Tosok die-bonders. ATC upgrades existing die-bonders to improve quality, productivity. Will furnish references upon request. ATC sold one DB1200 to Osram for Smartled device in 2018.

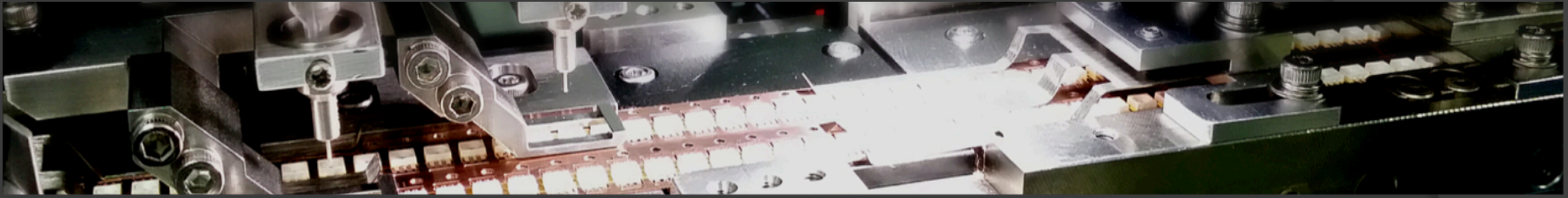




Capability

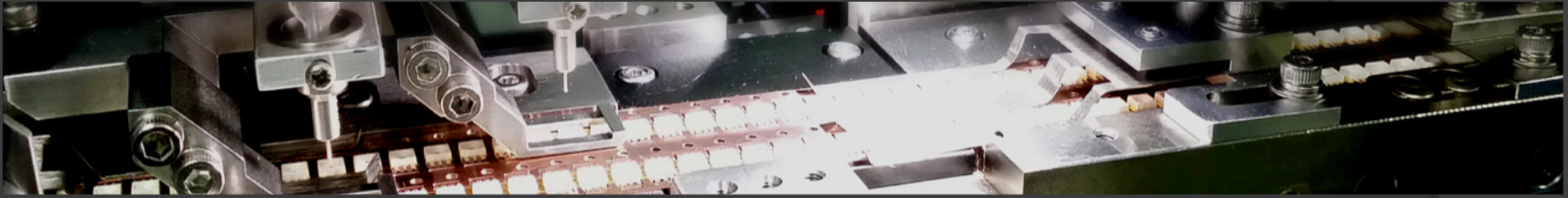
- Real-time machine, vision, process control development
- Real-time windows driver development for Motion, I/O, vision
- Real-time Ethercat Motion/IO control with force and flow sensor display
- Die-bond machine design & development
- Color vision inspection
- 3d inspection
- communication software: Secs-Gem, APC, strip-mapping, wafer-mapping
- Process quality improvement & cycle time improvement optimization

We go a step further than competitor by providing continuous improvement. Customers get value added upgrade for existing equipment.



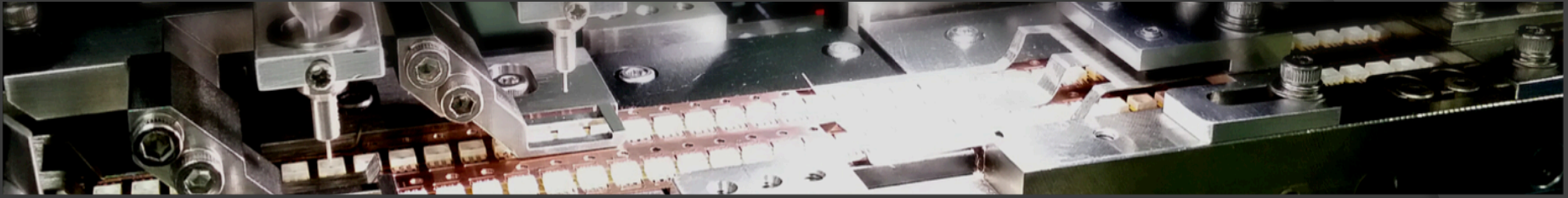
Highlights of Past Projects in Infineon Melaka

- Kerko on-the-fly inspection, improves cycle time by 25% on existing dual capacitor machines;
- Bottom view inspection system for DS TSLP old machines, for auto collet change, on-the-fly inspection of picked die & collet condition (fixed tilting dies problems). machines have been running from 2009 till now.
- Worked with Infineon Germany on high speed high resolution pre & post bond inspection for PSSO/PDSOF with high speed camera (improved quality & machine cycle time).
- Conversion of TPMS machine to PSSO (changed cameras, lightings, optics, indexing tracks & epoxy module)
- Conversion of Indexing System using linear motor
- Flip chip project (designed lens/lighting system to fix flip chip die alignment problem, post-bond inspection of bonded flipped chip by controlling lighting of lead-frame & after bond
- Esipac project (breakthrough for small die wafer-map by using high resolution camera to inspect 29x9 dies at a time finding safe route of every next die by using vision



Highlights of Past Projects in Osram Penang

- R&D of new software algorithm, lens/lighting solution for edge align and post-bond of difficult to align wafers with variable;
- R&D of auto-centering algorithm of non-perfect circular If alignment to achieve accuracy of +/- 25micron (fanned out to all apt/dragon machines)
- Upgrading of lens/lighting/CPU to improve quality & cycle time for APT/Dragon machines
- Retrofitting of old DBD4200 machines by replacing bond-head, epoxy, indexing modules with modifications to run preferred packages, electrical systems, cameras, optics, lightings & CPU (all parts are designed and installed by ATC)
- Developed real-time force and flow sensor display on DB1200 in Smartled production.



Company Premise

Company : Automation Technology Center Pte Ltd

Address : 33 UBI AVENUE 3, #04-44
VERTEX TOWER A
SINGAPORE 408868

2150 sq. feet Ramp up factory owned by ATC

[http:// www.automationtechnology.com.sg](http://www.automationtechnology.com.sg)



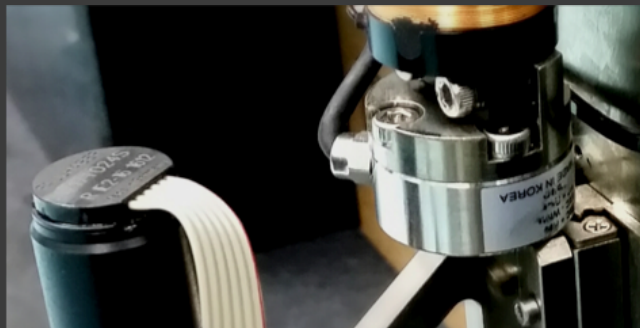
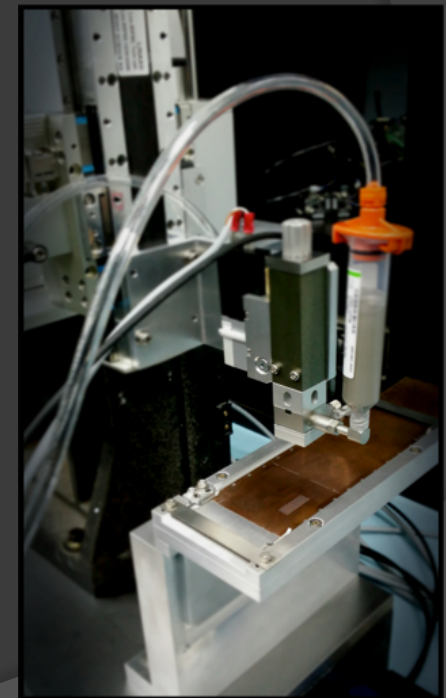


Company Premise – Staff & Director Room, Discussion Room





Company Premise – Manufacturing, R&D





COMPANY STAFFS



DIRECTOR
(HARTAWAN SURIANTO)



FINANCE/HR
(YENTY SHEN)



MECHANICAL DESIGN ENGR.
(MOHD.AMINURASHID B SA' AT)



MECHANICAL DESIGN ENGR. (PENANG)
(MOHAMMAD FAHMI AZLAN)



SOFTWARE/ELECTRICAL ENGR.
(AUNG KHIN SOE)



MECHANICAL ENGINEER
(LIM SOO CHIANG)



PRODUCTION TEAM

- Our Machine base is manufactured by Dolphin Engineering Singapore, a subsidiary of JEB (aerospace industry in Singapore) <http://dolphin.com.sg/p17/aboutus.html>, Akai Precision Engineering Singapore <http://www.akai.com.sg>. ATC also has production partners in Shanghai China.



Manufacturing facility at Dolphin Engineering Singapore