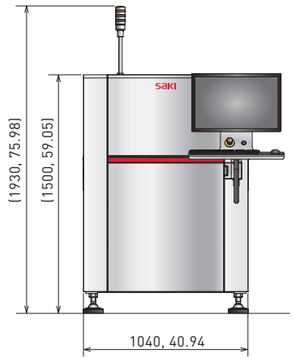
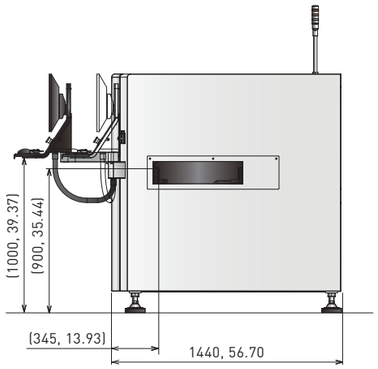
Dimensions

■ Front View (mm, in.)



■ Side View (mm, in.)



Hardware / Function Specifications

Model Name	2Di-LU1
Resolution	18 µm
Target PCB Size mm (in.)	Carrier: 50 W x 60 L - 610 W x 610 L mm (1.97 W x 2.36 L –24.02 W x 24.02 L in.) Inspection area (Scan): 50 W x 60 L - 460 W x 500 L mm (1.97 W x 2.36 L –18.11 W x 19.69 L in.)
PCB Thickness	0.5 - 5.2 mm (0.02-0.20 in.)
PCB Weight	12 kg (26.46 lbs) or less
PCB Clearance	Top: 130 mm (5.12 in.), Bottom: 40 mm (1.57 in.)
Heat Resistant Temperature	70°C (158F) or lower
Inspection Categories	Solder inspection for THT (Copper, Blow Hole, Pin, Fillet, Absence of Solder, Bridge) *Each defect name can be arranged freely by the system function
Transfer Conveyor Method	Flat belt transfer
Transfer Conveyor Height	880 - 965 mm (34.65 - 37.99 in.)
Operating System	Windows 10 IoT Enterprise 64 bit English Editon (Microsoft)
Electric Power Requirement	~ 200 - 240V +/-10%, 50/60Hz, 700VA
Air Requirement	0.5MPa, 5L/min (ANR)
Usage Environment	15°C (59F) - 30°C (86F) / 15 - 80% RH (Non-condensing)
Dimensions W x D x H(Main body)	1040 x 1440 x 1500 mm (40.94 × 56.69 × 59.06 in.)
Weight	Approx. 750 kg, 1653.47 lbs

Saki Corporation

Headquarters
DMG MORI Tokyo Digital Innovation Center
3-1-4, Edagawa, Koto-ku, Tokyo, 135-0051, Japan
TEL: +81-3-6632-7910 FAX: +81-3-6632-7915

Global Network
https://www.sakicorp.com/en/

Published May 2023. Specifications contained in this brochure are subject to change without notice.

[SJ411DCB1-02E]

saki
The Future in Focus

Inline Bottom-side 2D Automated Optical Inspection System

2Di-LU1

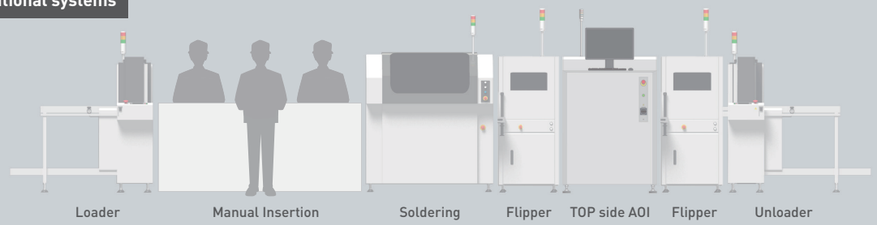
Back-end inline solution after selective and wave soldering

Bottom-side automated inspection machine for PCB back-end production

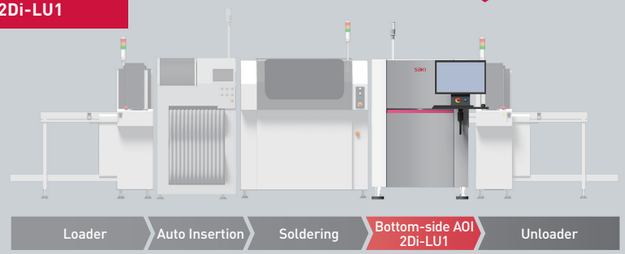
Ensuring the quality of through-hole solder parts after dip, selective, and wave soldering, and improving productivity.

Bottom-scan AOI system for automated PCB back-end production.
Ensure full traceability and Quality Assurance Data availability for back-end production.
Prevent damage from manual or automated board handling by eliminating the need to flip the PCBs.

Conventional systems

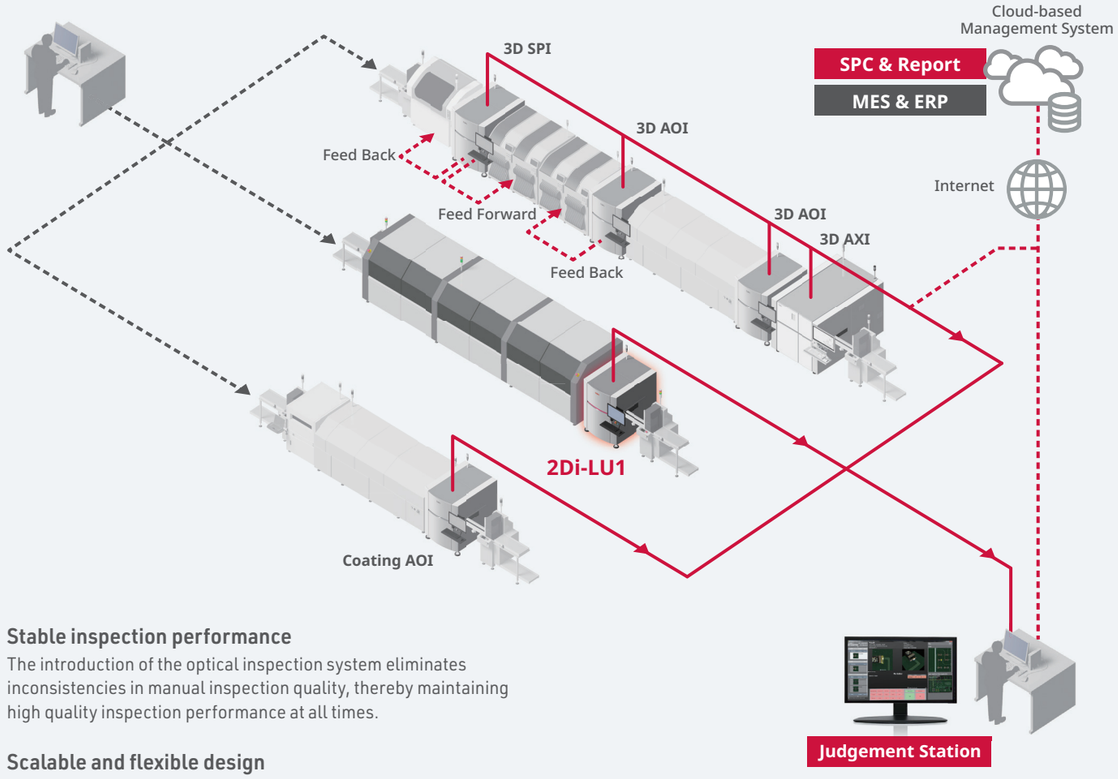


2Di-LU1



Ensures quality and productivity by eliminating the need for manual operation and board flipping.

SAKI QUALITY DRIVEN Production Solution



Stable inspection performance

The introduction of the optical inspection system eliminates inconsistencies in manual inspection quality, thereby maintaining high quality inspection performance at all times.

Scalable and flexible design

To support diverse customer production requirements, SAKI offers a highly scalable hardware/software design that is easy to integrate into production management systems and production lines.

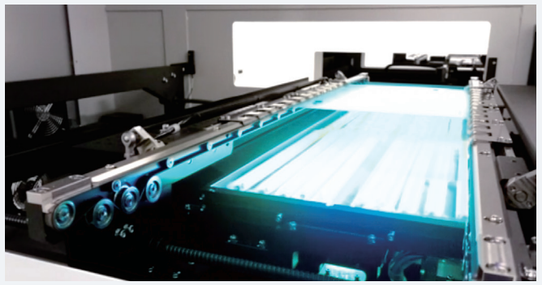
Key Factor 1 SAKI's Proprietary Hardware

SAKI Line Scan technology

SAKI's unique Line Scan imaging technology is applied to bottom-side inspection. High-speed imaging enables inspection of large PCBs in one pass in about 9 seconds. The newly developed high-rigidity conveyor is compatible with large odd-shaped inserted component mounted-PCBs and heavy jigs. Covering the scanner with tempered glass protects it against falling flux and foreign substances.
It provides easy maintenance and cleaning.

- Maximum PCB size 460 x 500 mm (18.11 x 19.69 in.)
- Maximum PCB weight 12 kg (26.46 lbs)
- PCB clearance Top: 130 mm (5.12 in.), Bottom: 40 mm (1.57 in.)

Bottom-side scanning



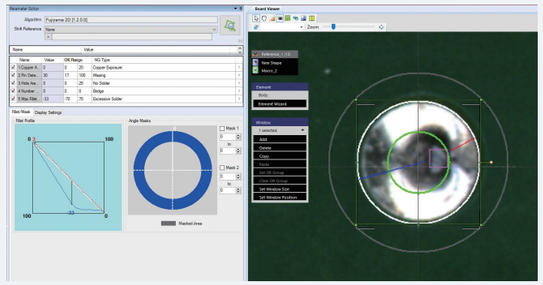
Key Factor 2 SAKI's Unique Software

Proven inspection algorithms

The highly rated FUJIYAMA algorithm provides through-hole solder joint and pin inspection. By analyzing solder meniscus and pin presence using SAKI's unique lighting technology, the following defects are simultaneously inspected:

- Copper exposure
- Pin presence
- Blow holes
- Excessive solder
- Insufficient solder
- Solder bridges

FUJIYAMA user interface

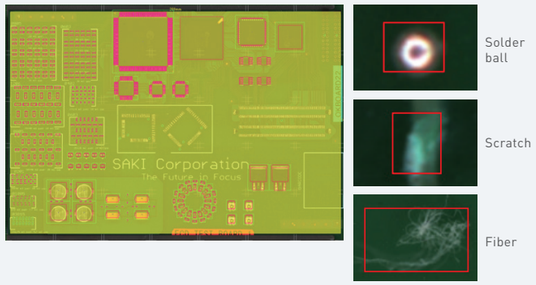


Extra Component Detection (ECD) inspection capability

SAKI's Line Scan technology scans the entire PCB in one pass. By applying the ECD function, unexpected defects such as the following can be detected automatically:

- Plastic mold chipping
- Reel tape fragments
- PCB pattern defects
- Dropped chip parts
- Foreign substances
- Solder frame damage

ECD inspection window



Key Factor 3 SAKI QUALITY DRIVEN Production Solution

BF2 Integration

The new THT AOI adopts the same software platform as the 3D Solder Paste Inspection machine (SPI) and 3D Automated Optical Inspection machine (AOI) systems.

- Simple and easy user interface
- Effective defect judgement display
- Offline programming
- Statistical processing of inspection results

Additionally, by using the same system options as SAKI's SPI and AOI solutions, the operator's workload is reduced. Maintenance is easy and cost efficient since the same maintenance and service parts are used.

BF2-Monitor Image