

Advanced Z-axis Solution

Saki's 3D-AOI Z-axis solution enhances 2D/3D inspection scalability and helps improve measurement accuracy and production quality.

The complexity of printed circuit boards has increased rapidly in the electronics manufacturing industry, creating diverse circuit board inspection needs. Saki's 3D-AOI Z-axis optical control system masters these new inspection challenges with ease, precision and speed.

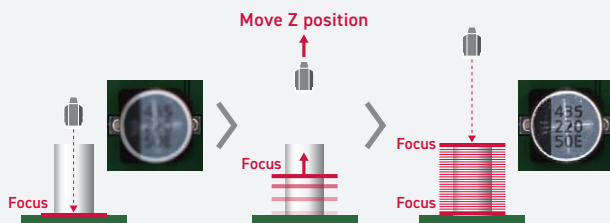
- **Tall component Polarity Inspection and OCR**
- **Height measurement of tall components and press-fit pins**
- **Flexible PCB and warped board surface compensation**
- **Height adjustment for PCB on jig and module board inspection**



Four Z-Axis Solution Scalability Factors

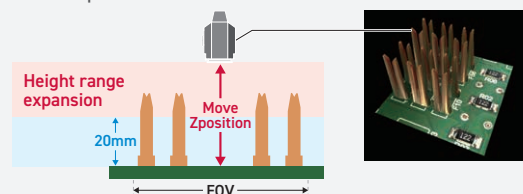
Focus Range Extension

The focus range is adjusted for both the PCB surface and the top of tall components, improving inspection accuracy of characters (OCR, OCV) and polarity inspection.



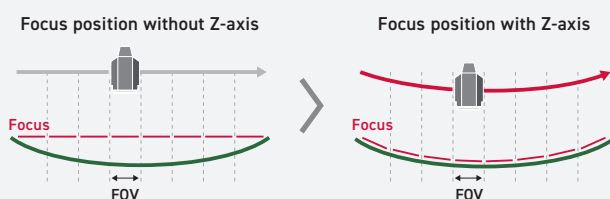
Height Measurement Range Extension

The height measurement range extends up to 40mm. Saki's unique technology captures and reconstructs multiple images for simultaneous solder surface and tall component height measurement. High-precision measurement of press-fit pins is also possible.



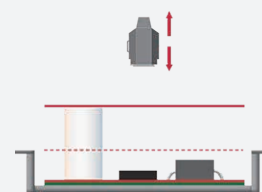
Real Time Warpage Compensation

The optical head position adjusts to the board surface height, for accurate real-time warpage compensation during image capture. With a warpage compensation ability of >2mm there is no need for additional hardware such as laser.



PCB On Jig Inspection Capability

The system can inspect carrier fixtures of varying substrate surface heights, adjusting image capture to each individual substrate surface height. The Z-axis drive has a drop range to 15mm below the rail height. 3D-AOI with Z-axis can handle diverse inspections far beyond SMT.



* Z-axis is a factory option.

saki The Future in Focus

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[SJ3922DCF1-01E]

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