

NEW

OMRON

PCB Inspection System VT-S730

Omron's 3D-SJI
For Efficient Manufacturing of High-quality Products



STABLE INSPECTION

VERTICAL START UP

BEST QUALITY @ THE MINIMUM Q COST!



VT-S730

realizing

Omron's 3D-SJI* *Solder Joint Inspection

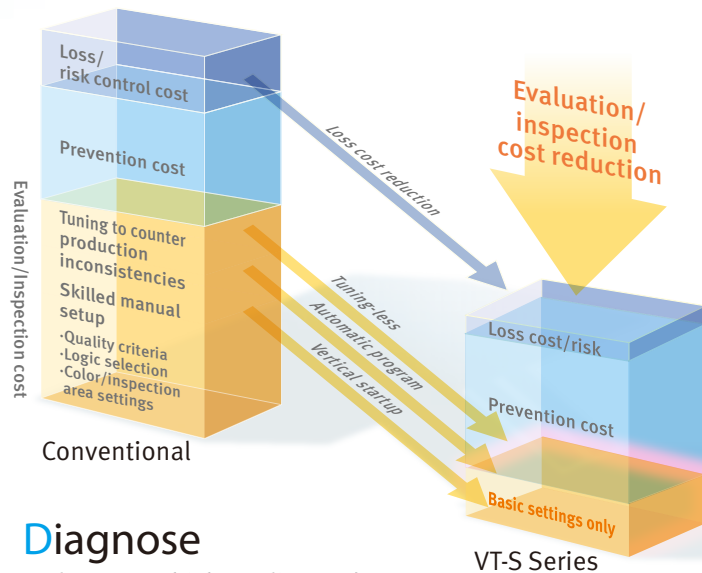
For Efficient Manufacturing of High-quality Products

Improvement Cycle for High-quality Product Manufacturing



The efficient improvement cycle ensuring the output of high-quality products promotes the "minimization of quality costs". This can further intensify the environment for quality improvement initiatives.

BEST QUALITY @ THE MINIMUM Q COST!



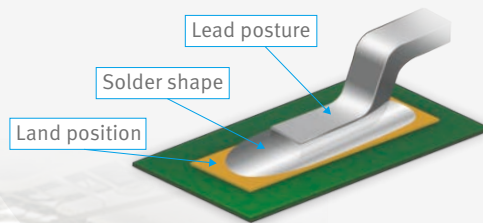
Diagnose

Realize quality control to create high-quality products

Quality Quantification by 3D-SJI (Solder Joint Inspection)

Detect

Ensure constrain-free design to meet the needs of the market for compact size and lightweight



Define

Initiatives for quality control based on the same criteria between mother and satellite factories



Process Control

Quality Management System Q-up Navi

Quality control during the PCB production process and efforts in process improvement with the post-reflow quality as the starting point are possible.

Pass rates and real fault rates can be checked in real time to swiftly manage quality issues.

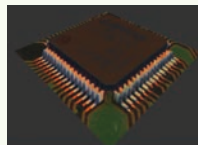


• Quality/production control screen

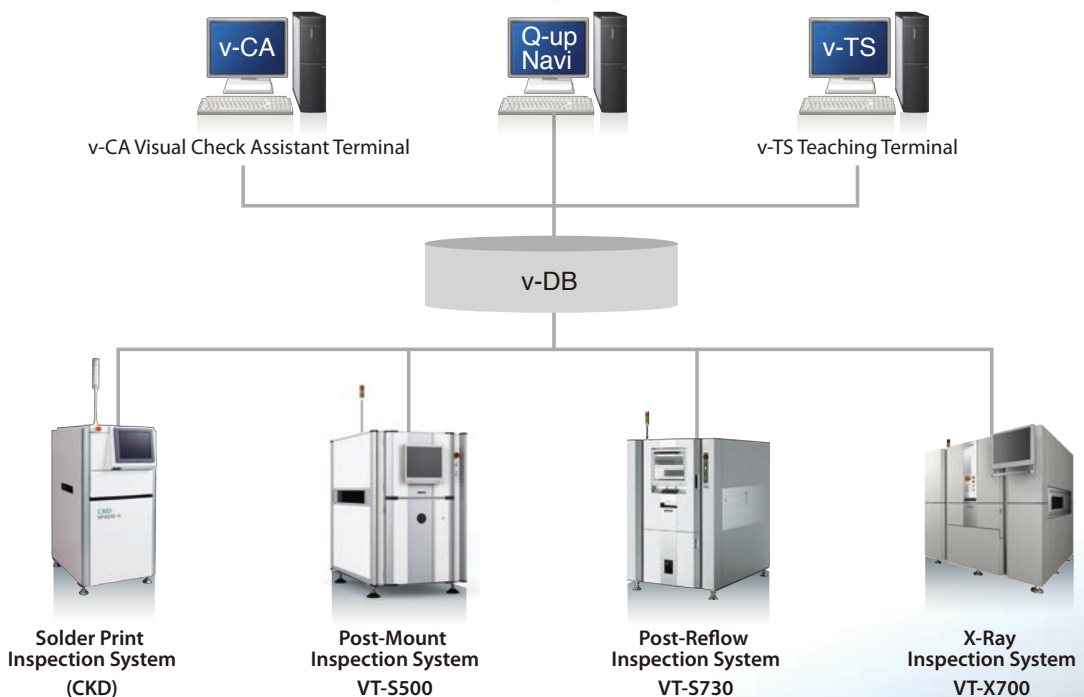


• Process comparison Patent No.3994925

Supports
3D model display



• Analysis function
Shows real faults and false alarms in Pareto chart



* v-DB compatibility with the X700 is currently under development.

Technologies Supporting 3D-SJI

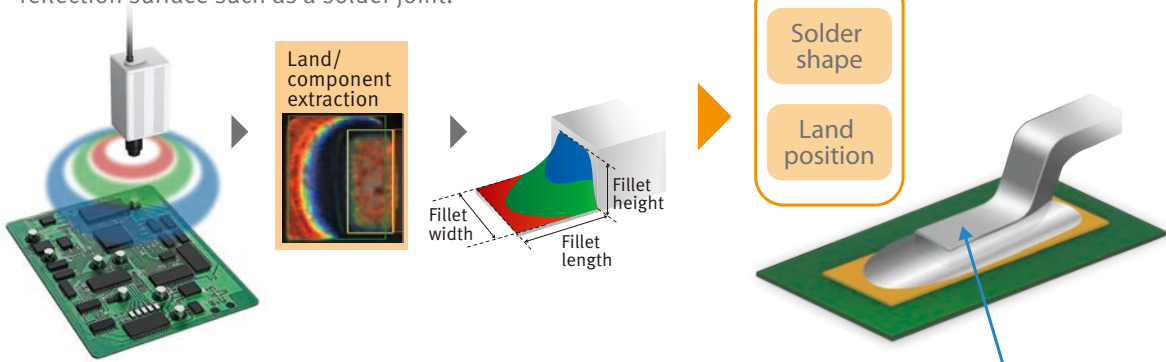
Patent Pending



Omron's
Unique
Technology

Color Highlight™ 3D Shape Reconstruction

Uses an optimal principle enabling a stable inspection of the reflection surface such as a solder joint.



New

Phase Shift Inspection Principle

Suitable for inspecting diffusing surfaces such as component bodies and leads. Defects characteristic to component posture (lifted, tilted, etc.) can be easily detected.

Lead posture

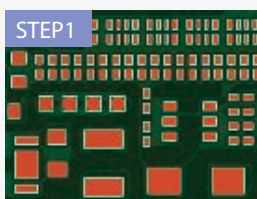
Omron's 3D-SJI can detect
"Wettability error" with No lead lifting



Auto Generation of Inspection Programs

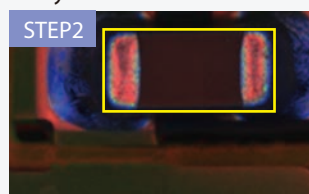
The vertical startup of inspection programs is possible thanks to the combination of the Color Highlight™ 3D shape reconstruction and phase-shift principle.

Land extraction



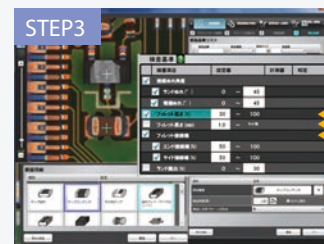
Automatically extracts land positions from a bare board; which makes operator need only check whether the individual window settings are correct or not.

Generation of component body windows

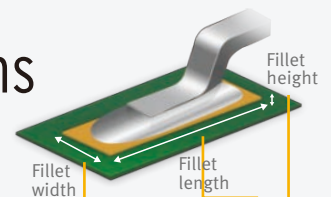


The use of height data eliminates the need of component color tuning, generating component body windows.

Threshold settings



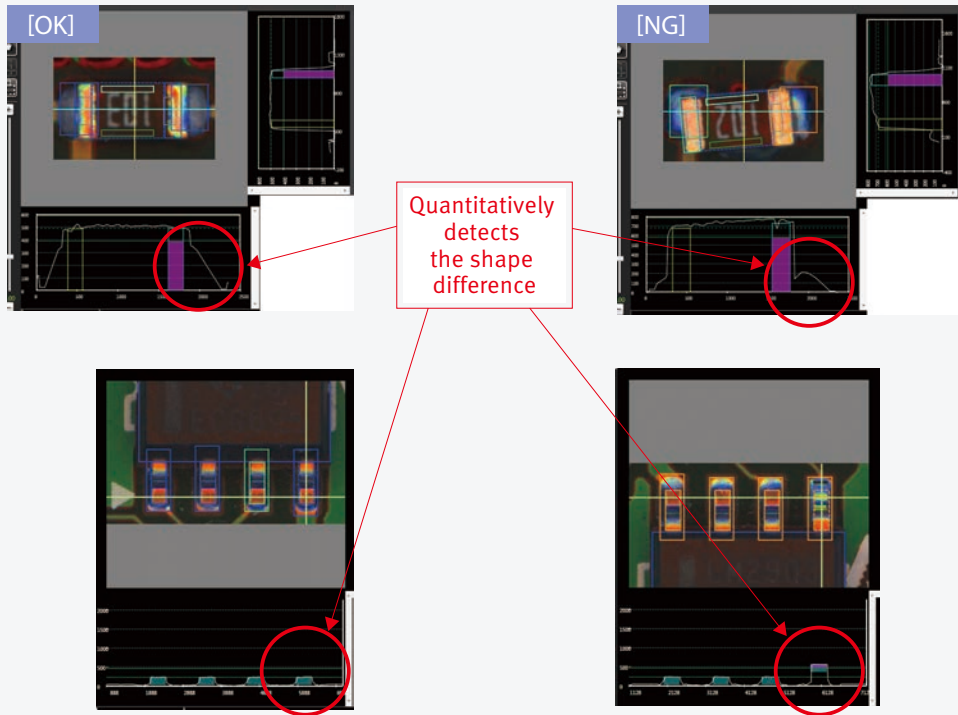
Quality control criteria can be directly set thanks to quantified solder shape data.



* Requires post-reflow PCB and mount data.

Quantitative Inspection

- Solder and component shapes can be measured



Stable Inspection

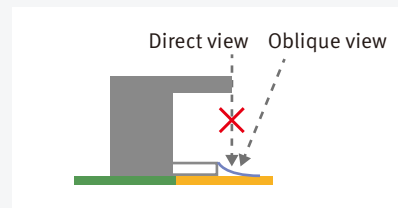
- Reduces the secondary reflection* and shadow interference

* Light reflection on adjacent components or solders

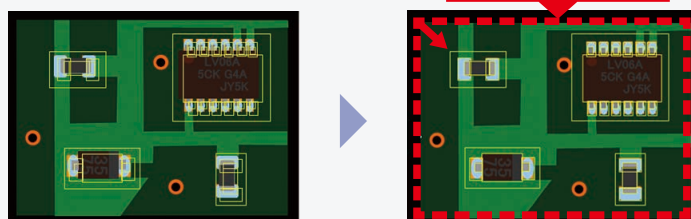
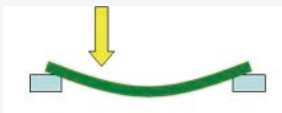


- Oblique viewing camera incorporated

Enables detecting solders under the components, which is physically undetectable from direct view

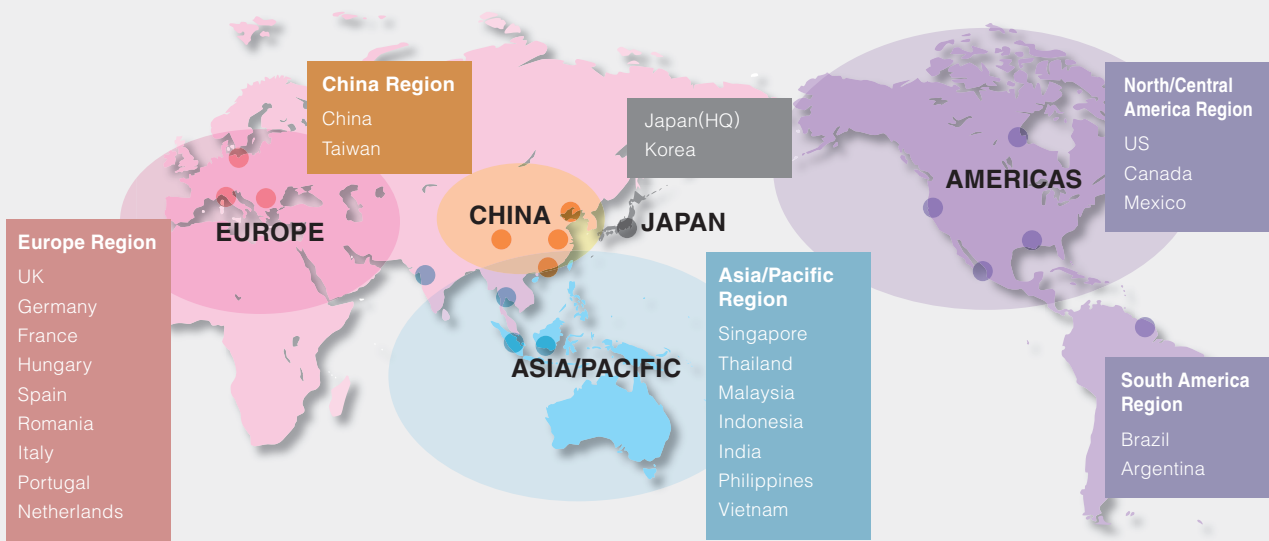


- Land position recognition and correction are performed for each individual image screen, enabling the detection of warped or expanded/contracted PCBs



We have delivered over 3,500 units to customers in the world's automobile industry

Providing global intensive service and support



Omron Group engineers provide direct support via its extensive network spanning more than 30 countries (excluding South America and some European countries).

Hardware configuration

Outer dimensions	1100(W)×1470(D)×1500(H)mm
Weight	Approx. 800kg
Power supply	200 to 240 VAC (single phase), voltage fluctuation range ±10%
Line height	900±20mm
Air supply pressure	0.3~0.6MPa

Functional specifications

Supported PCB size	50(W)×50(D)~510(W)×460(D)mm
Thickness	0.4~4mm
Clearance	Above PCB: 40mm; Below PCB: 40mm
Height measurement range	25mm

- This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.
- This product may cause interference if used in residential areas.

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